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Title of the Invention: System and Method for  
Automated Placement or Configuration of  
Equipment for Obtaining Desired Network  
Performance Objectives . . .  
Inventor's Name: Rappaport et al.  
Docket No./Application No.: 10/714,929

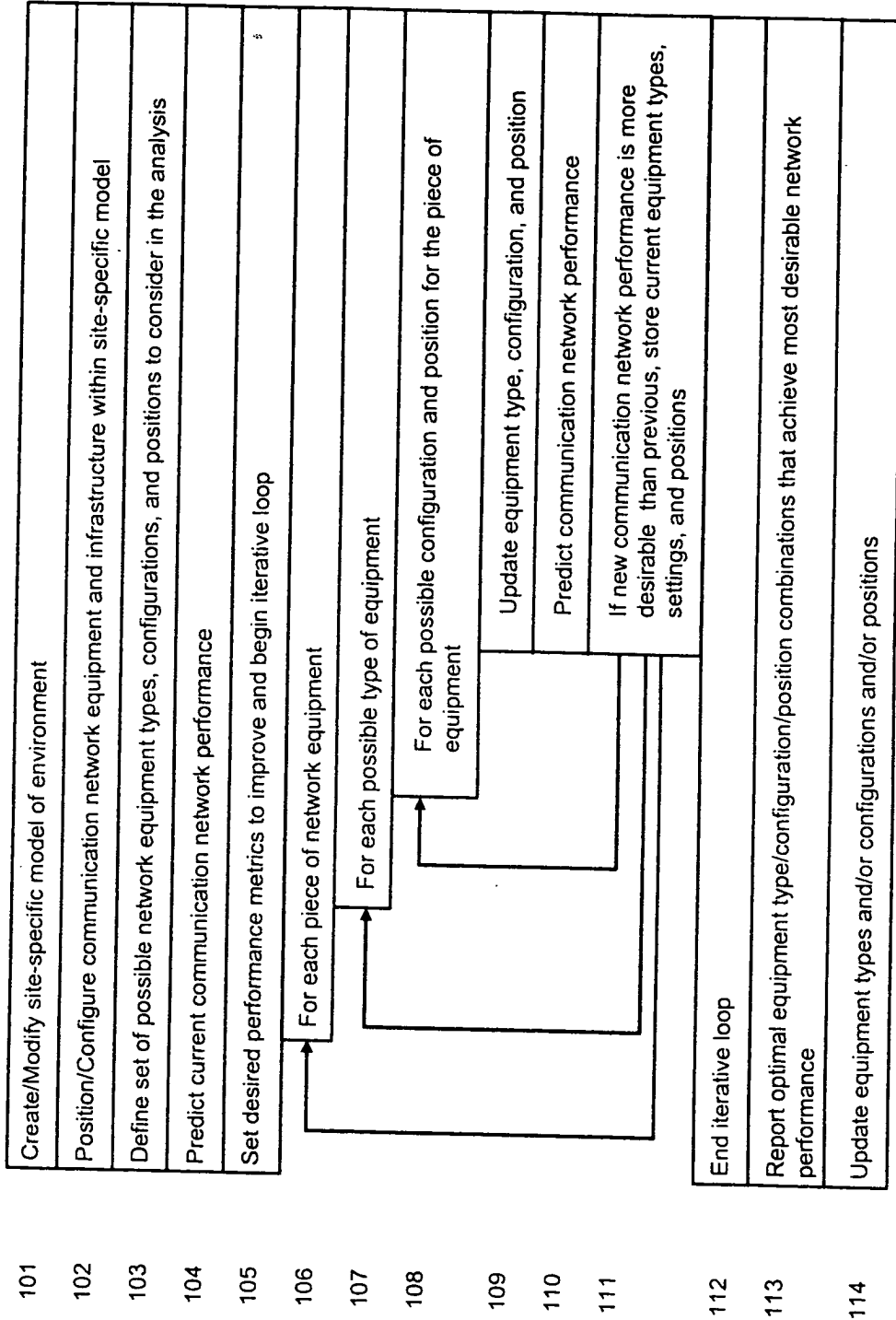


Figure 1

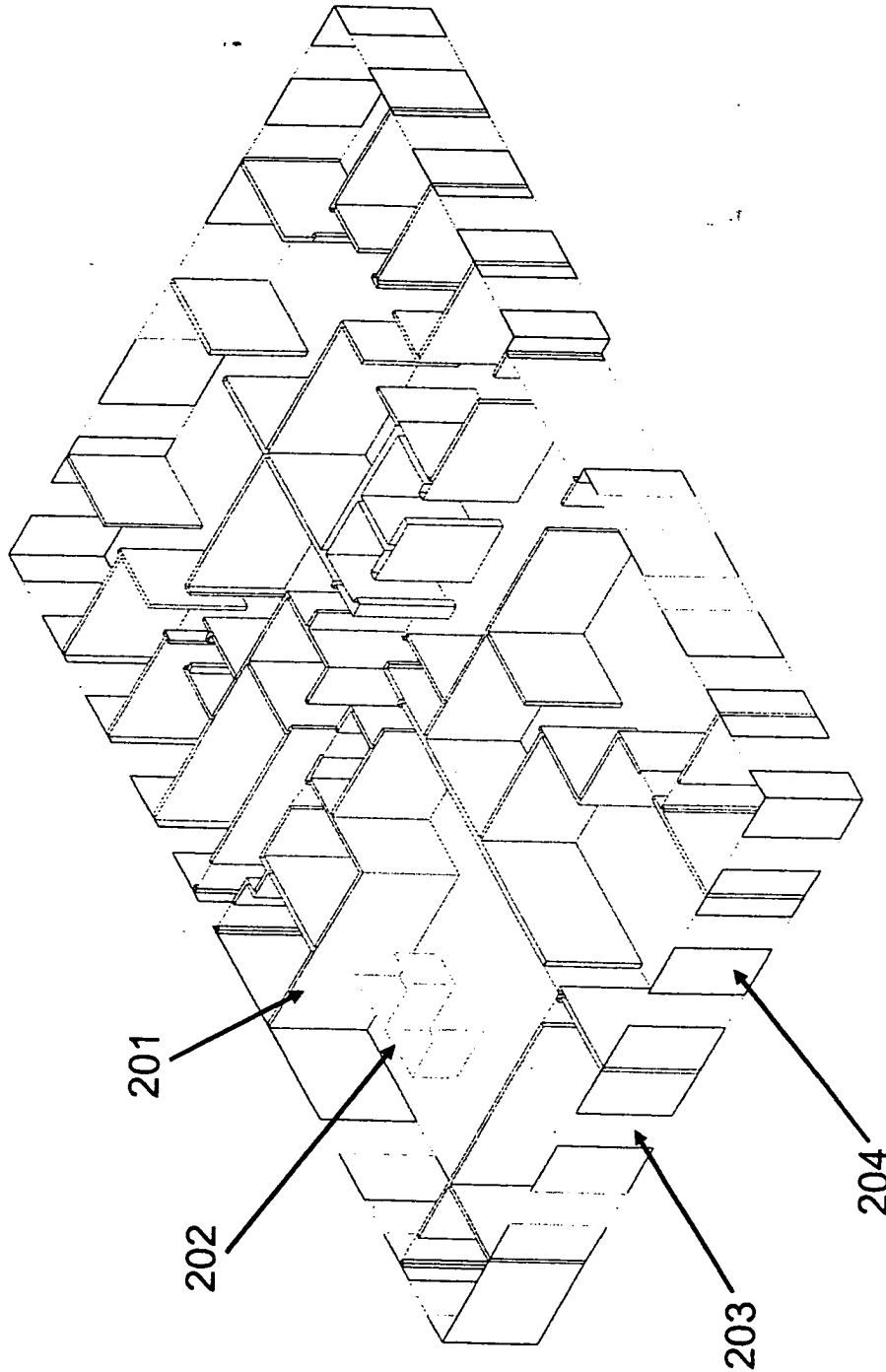


Figure 2

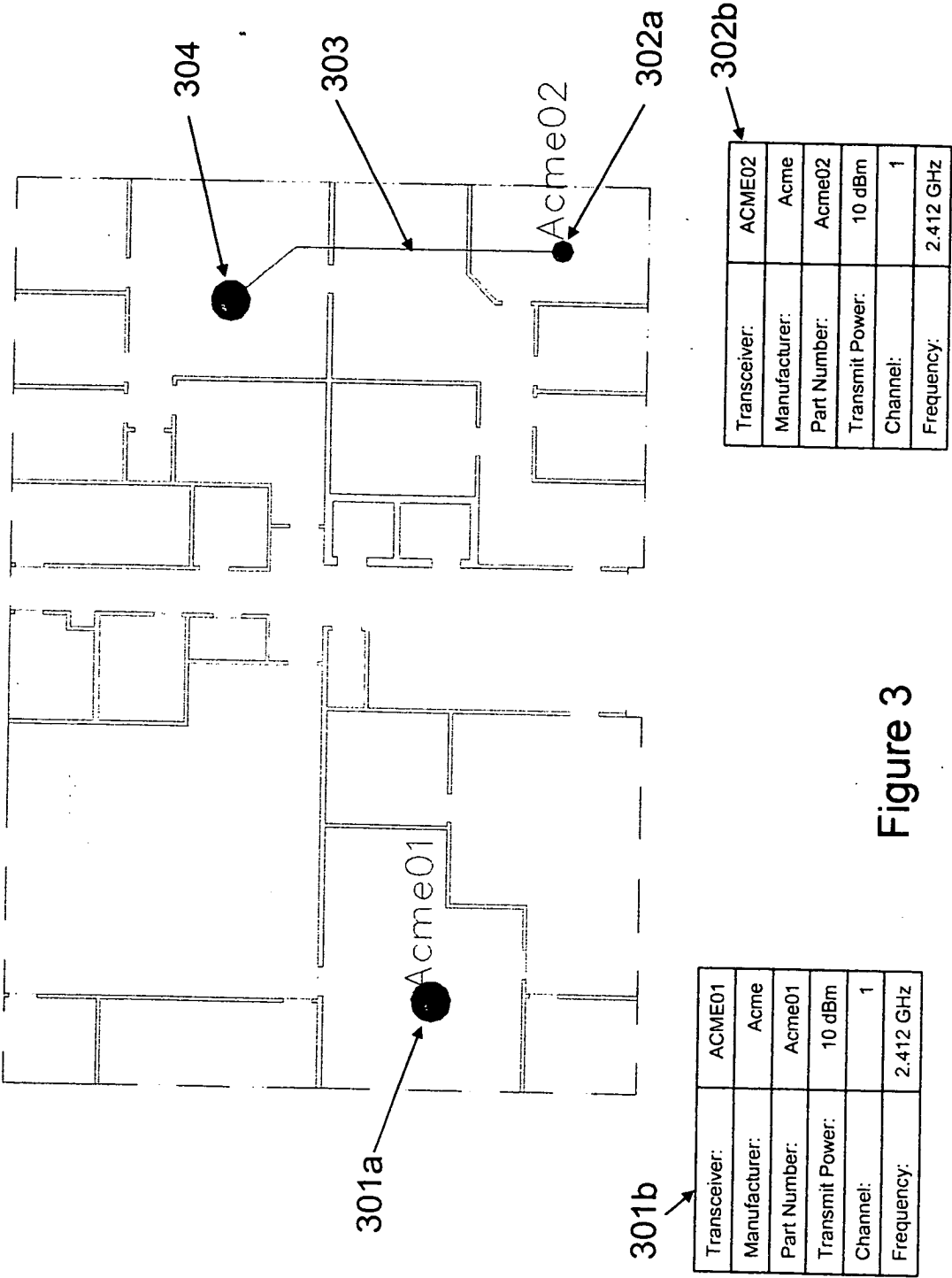


Figure 3

Title of the Invention: System and Method for  
Automated Placement or Configuration of  
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Performance Objectives . . .

Inventor's Name: Rappaport et al.

Docket No./Application No.: 10/714,929

401

File Wireless Valley SitePlanner (C:\SitePlanner\BOM\components.xml)

Type	Manufacturer	Part #	Description	Loss (dB per 100 meters)	Connections	Physical Cost (per meter)
CONNECTOR	E-Tron		Type N 10dB Tap	0.50	2	300.00
CONNECTOR	Narda	3372A-2	Type N Female 2-way power divider	0.30	3	65.00
ANTENNA_POINT	Allen Telecom	ATS4110	ATG Unity Gain OMNI Indoor Active Li...	0.00	1	25.00
CONNECTOR	E-TRON, N Conne...		10dB Multifrequency Tap	0.50	2	20.00
CABLE	RFS Cablewave	HCA78-50JFP	7/8" Air Dielectric, Plenum, Corrugated...	0.63	2	15.19
CABLE	RFS Cablewave	LCF78-50JFRH	7/8" FLEXWELL Foam Fire Retardant...	0.64	2	9.19
CABLE	Delwave	810929-001	7/8" Flexwell Air Dielectric cable	7.10	2	3.71
CABLE	Acme	9983-A	FlexMax Air Dielectric	13.00	2	2.69
ANTENNA_POINT	Antel	LPD 7308	80 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	LPD 7907	80 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	LPD 7907/8	80 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	LPD 7905	92 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	LPD 7905/2	92 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	LPD 7905/8	92 deg. Hor.	0.00	1	1.00
ANTENNA_POINT	Antel	BCR 80010:180	Directional special shaped pattern	0.00	1	1.00
ANTENNA_POINT	Antel	BCD 8007	OMNI 15 deg. Ver.	0.00	1	1.00
ANTENNA_POINT	Antel	BCR 80010:270	special shaped pattern	0.00	1	1.00
ANTENNA_POINT	Swedcom Corporati...	ALP8009 N20T	80 deg. 9 dB Gain with 20 deg. D/T	0.00	1	0.00
ANTENNA_POINT	Allen Telecom	ASPP2933 1850	dR OMNI PCN 1850-1990 360 den. 3	0.00	1	0.00

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Figure 4

Title of the Invention: System and Method for  
Automated Placement or Configuration of  
Equipment for Obtaining Desired Network  
Performance Objectives . . .

Inventor's Name: Rappaport et al.  
Docket No./Application No.: 10/714,929

501

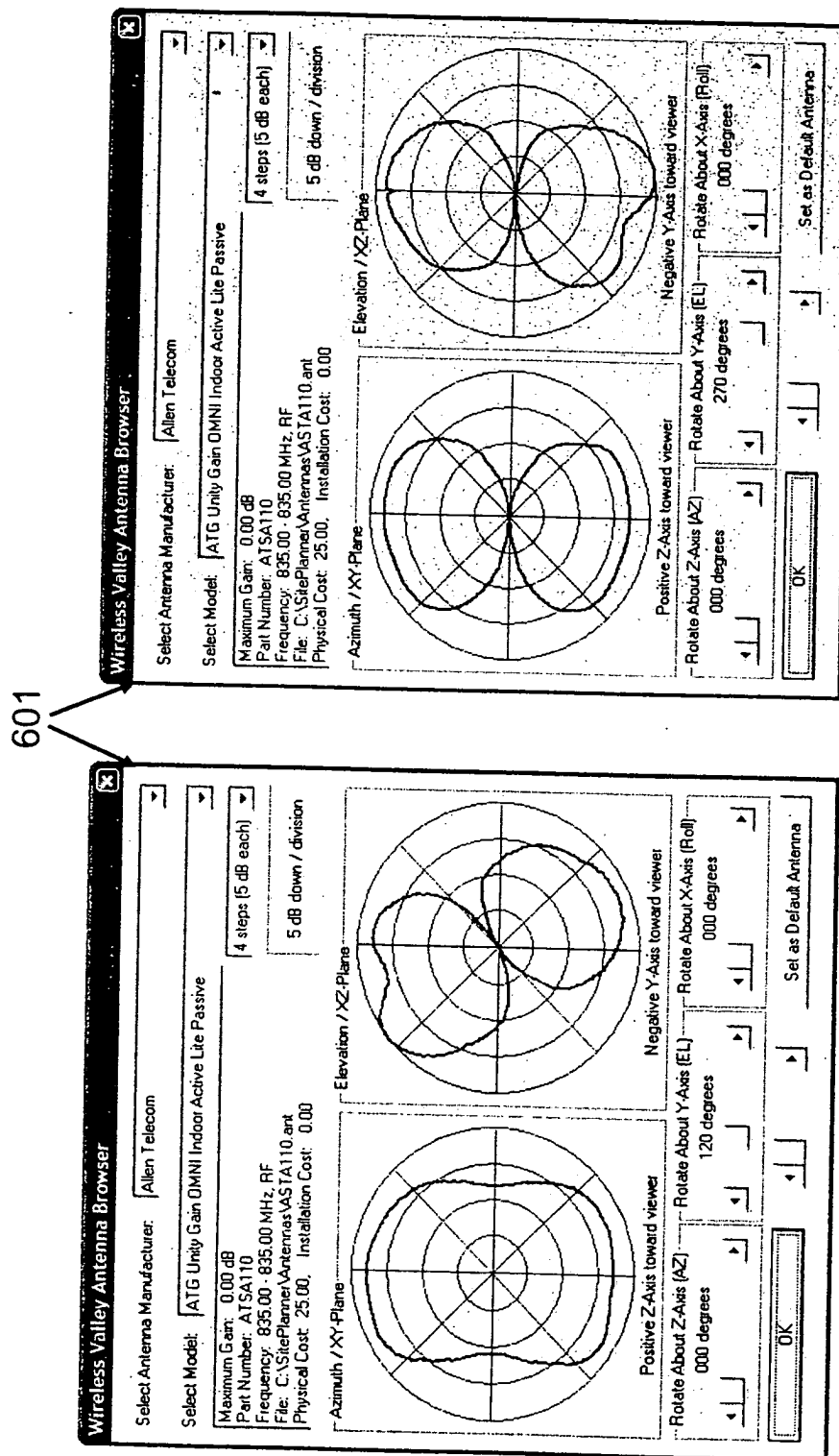
Wireless Valley SitePlanner (C:\SitePlanner\BOM\components.xml)

Type	Manufacturer	Part #	Description	Loss (dB)	Connections	Physical Cost...
AMPLIFIER	Cellular Specialties	CSI-BDA110	In-Building Amplifier Model 110 SMR Band	-40.00	2	0.00
AMPLIFIER	Cellular Specialties	CSI-BDA110	In-Building Amplifier Model 110 SMR Band	-30.00	2	0.00
AMPLIFIER	Cellular Specialties	CSI-BDA110	In-Building Amplifier Model 110 SMR Band	-20.00	2	0.00
AMPLIFIER	Cellular Specialties	CSI-BDA120	In-Building Amplifier Model 120 SMR Band 10 dB...	-10.00	2	0.00

502

Figure 5

Inventor's Name: Rappaport et al.  
Docket No./Application No.: 10/714,929



## Figure 6

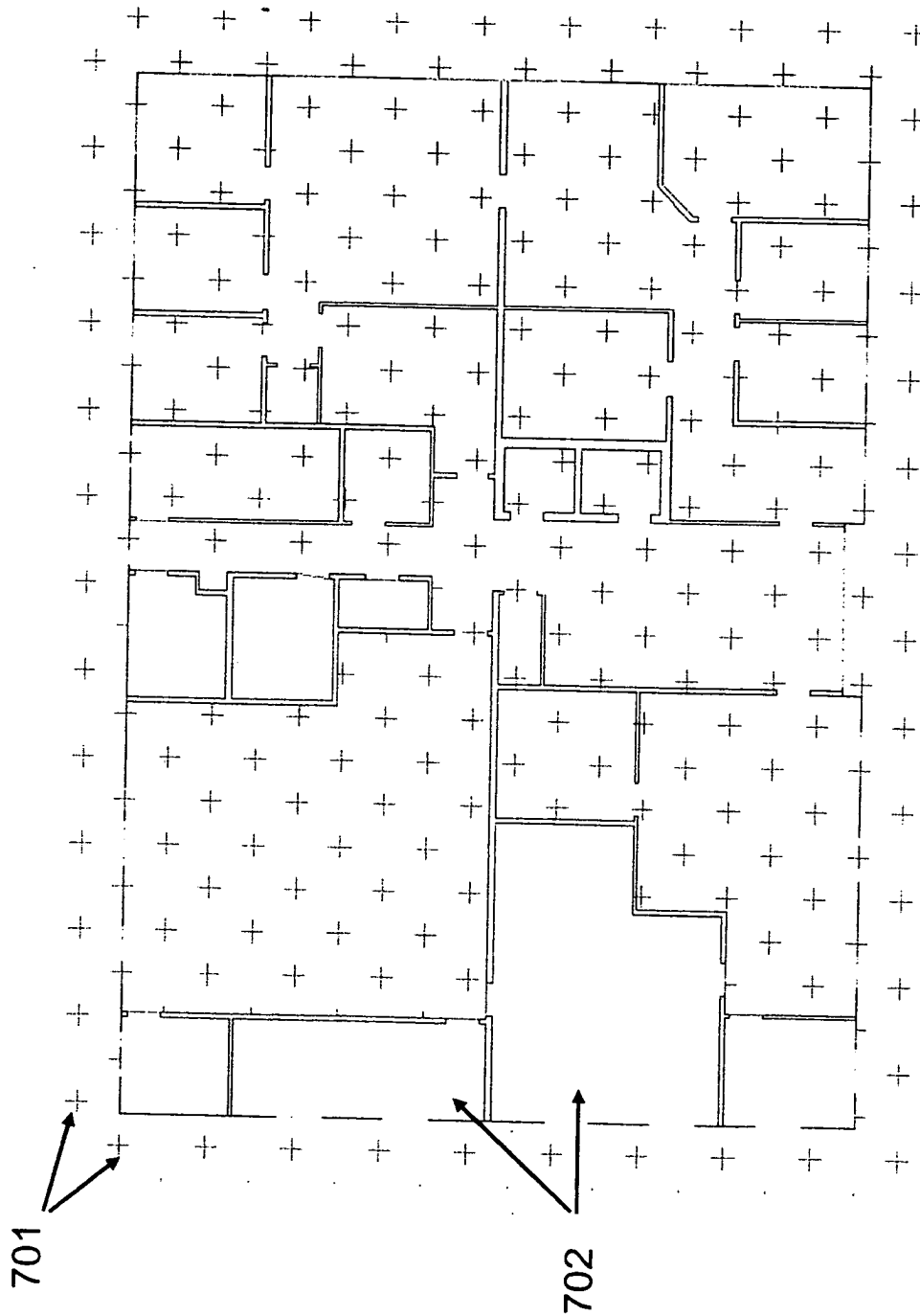


Figure 7



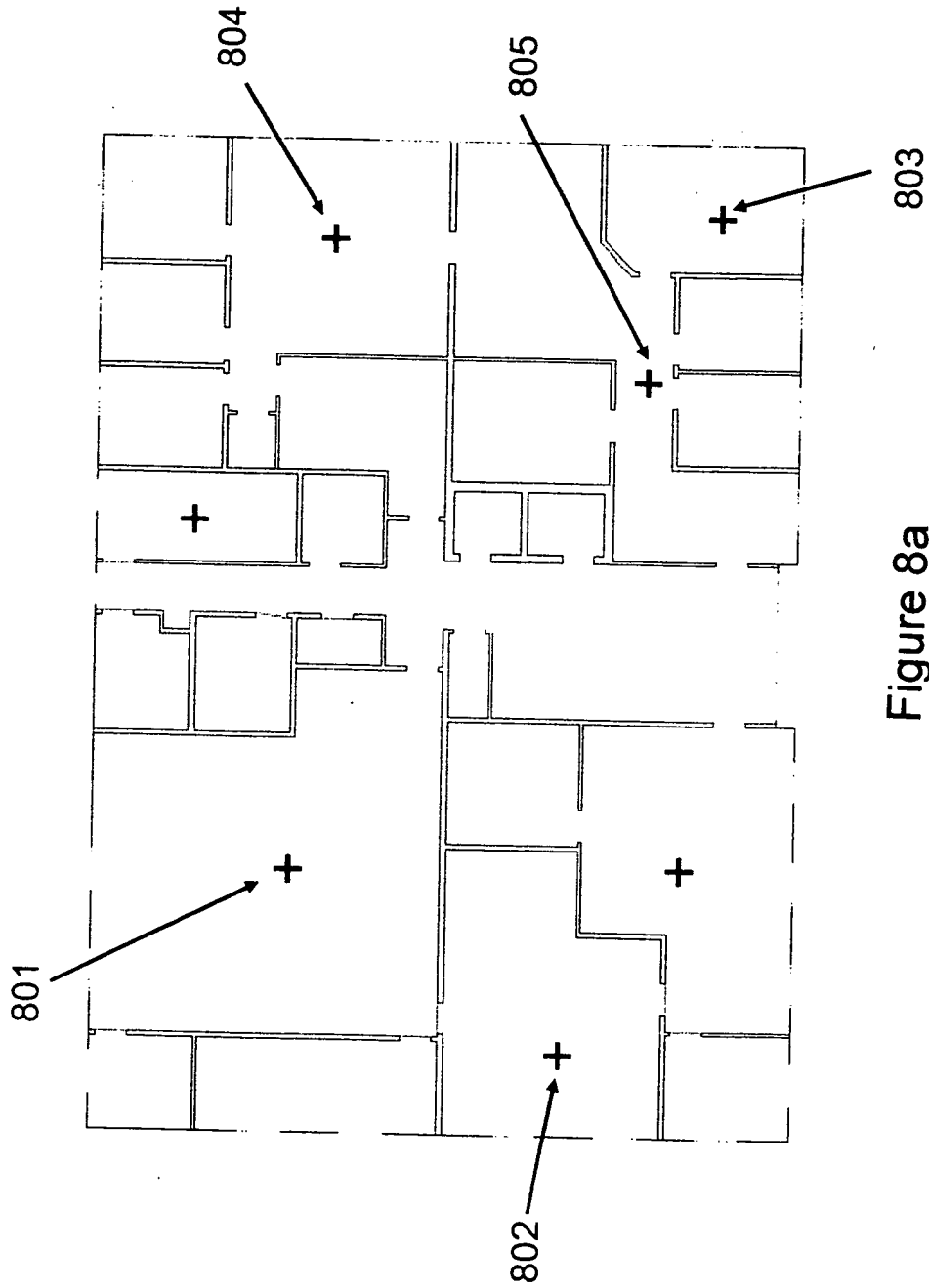


Figure 8a

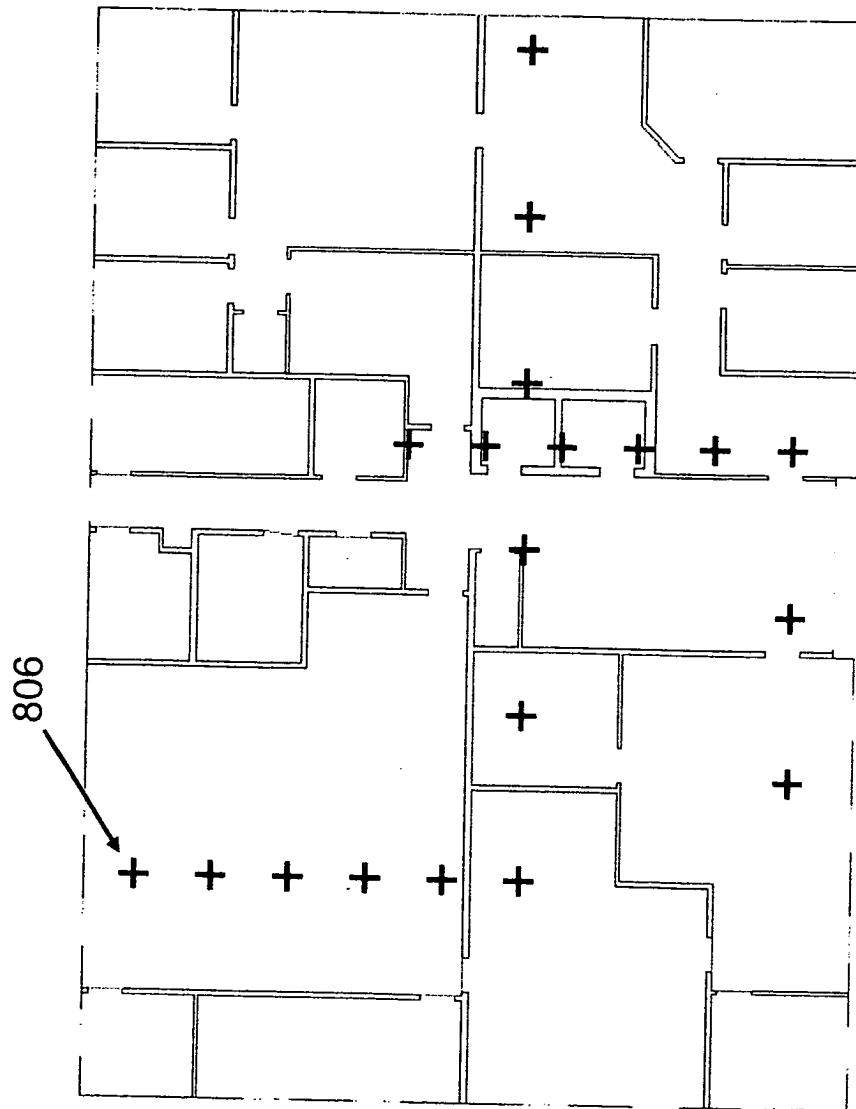


Figure 8b

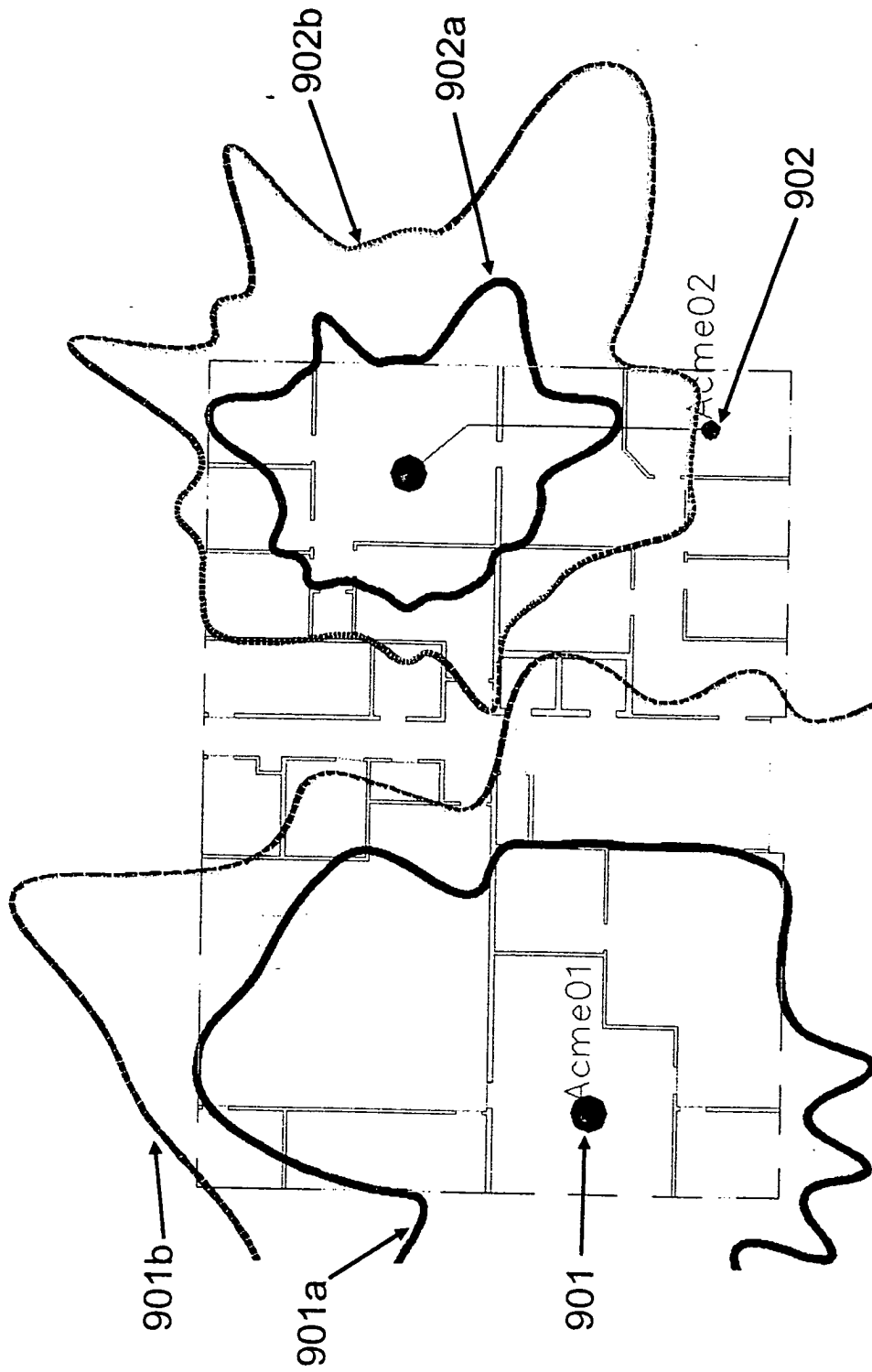


Figure 9

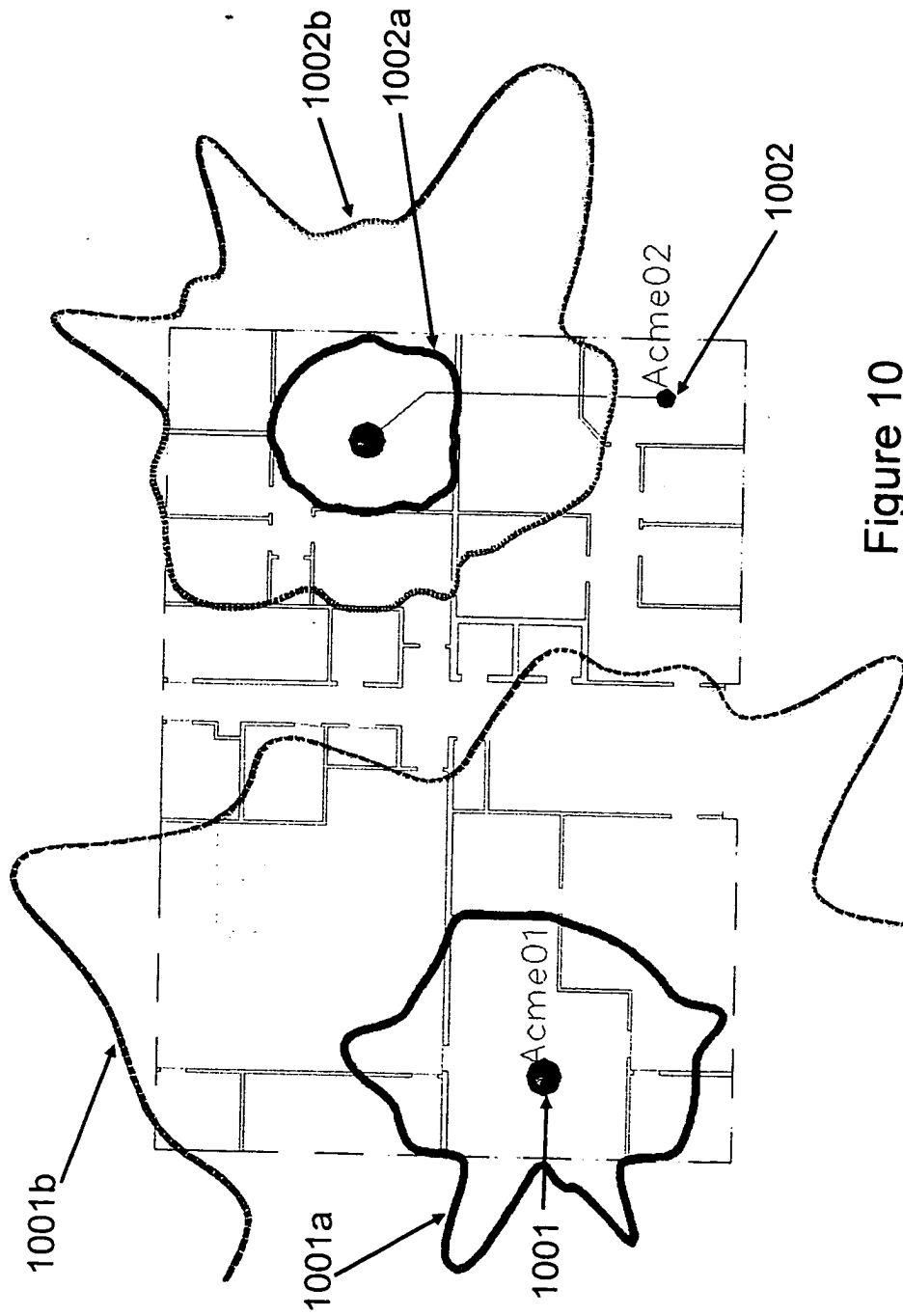


Figure 10

1101

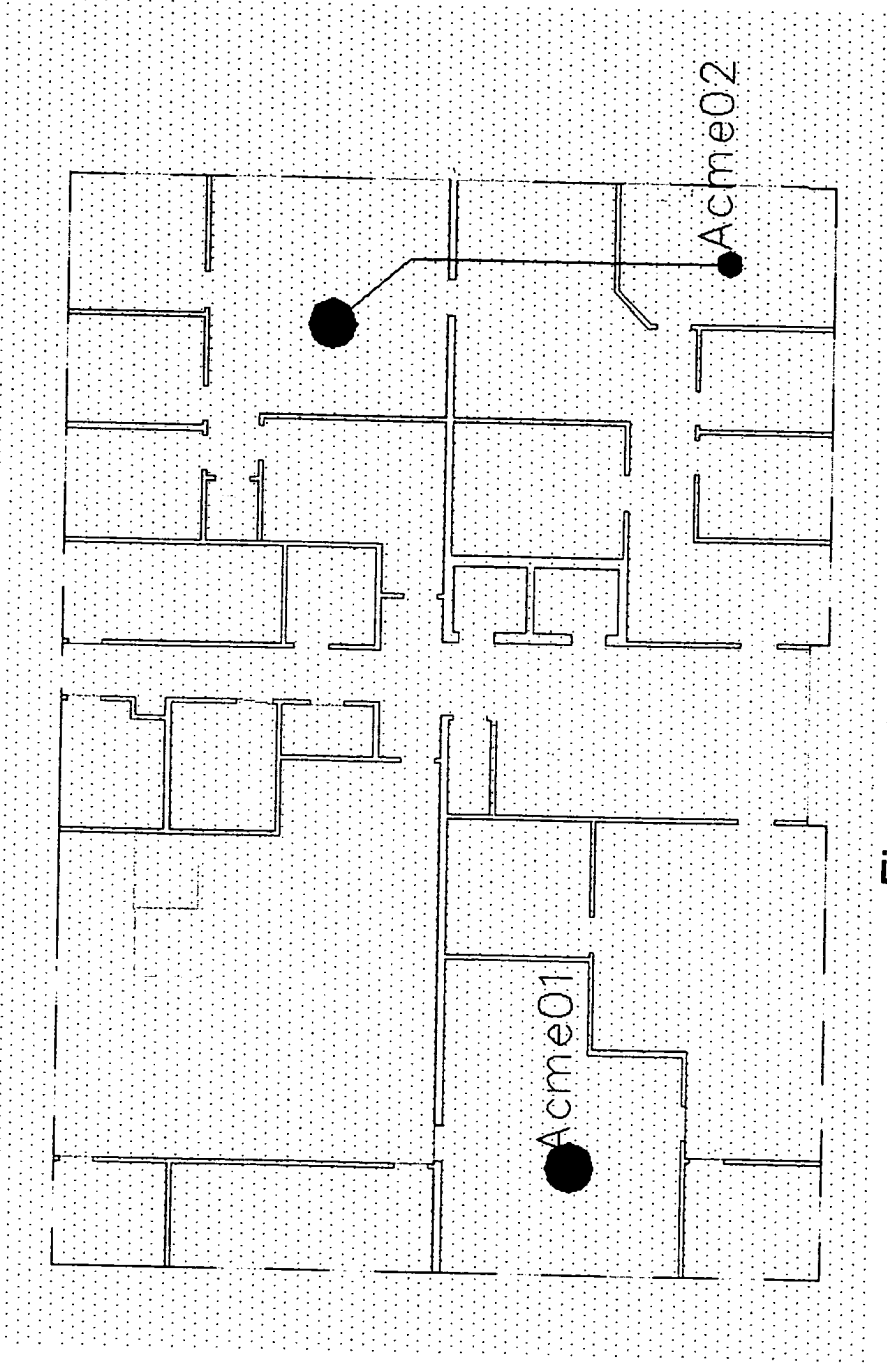


Figure 11

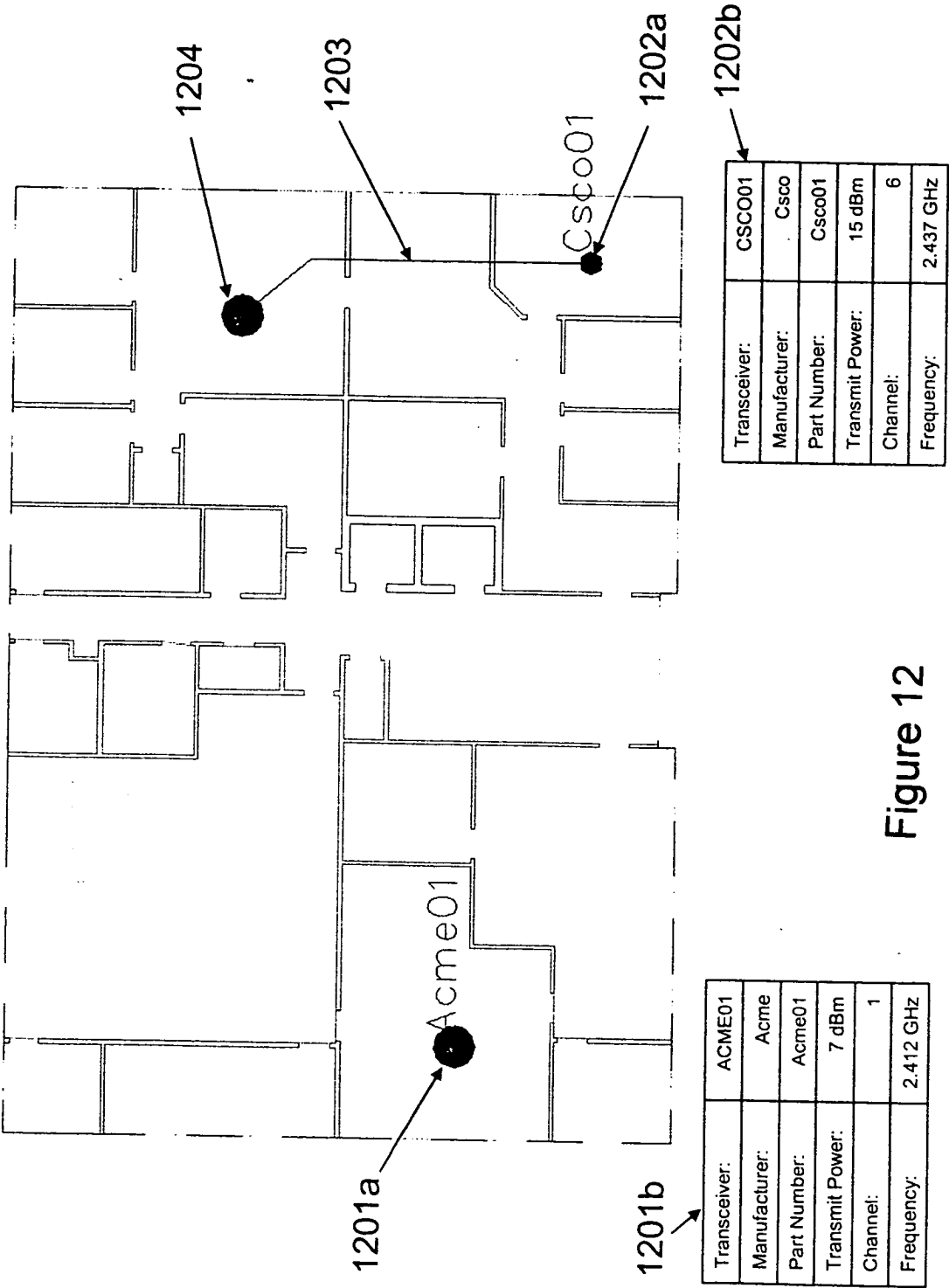


Figure 12

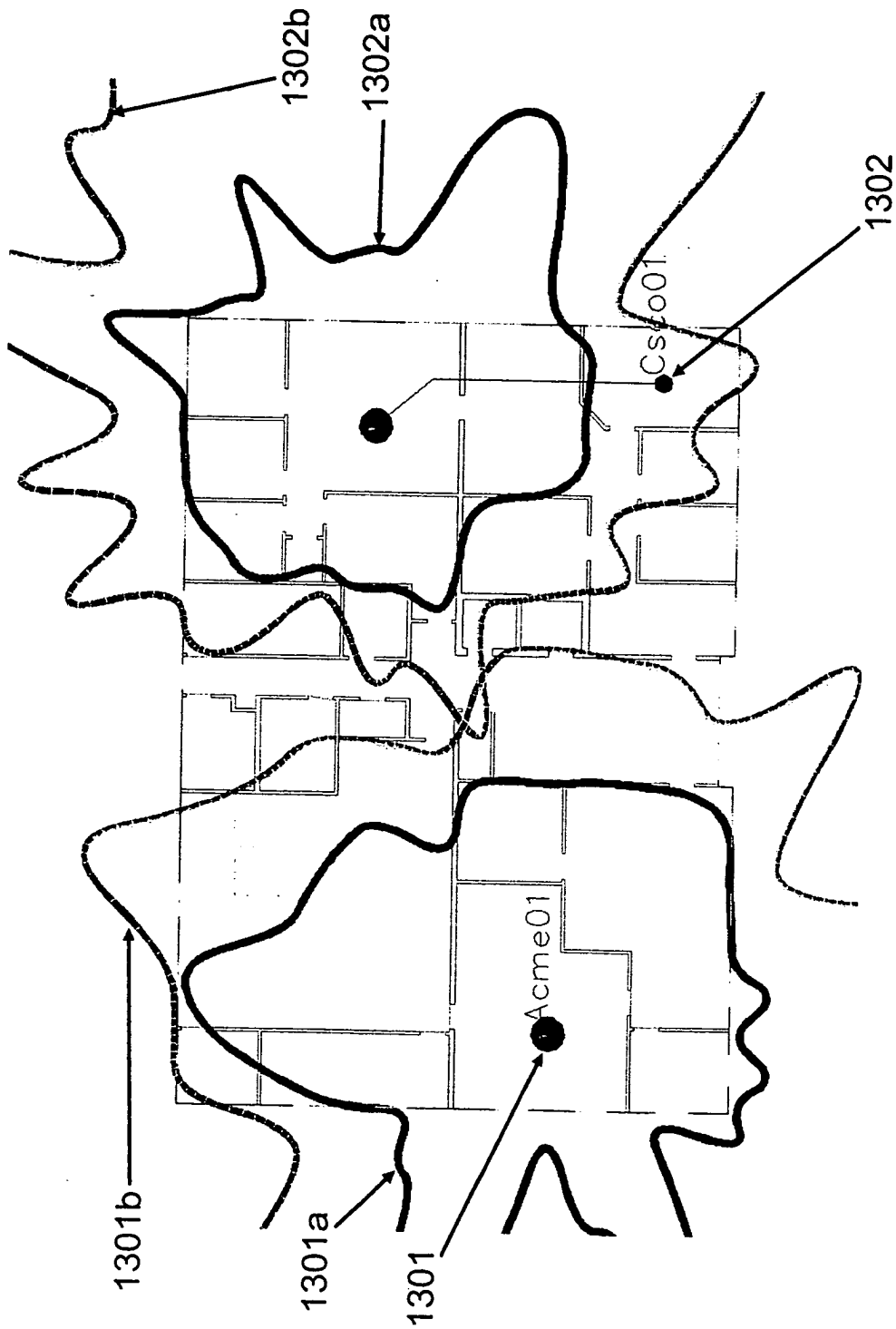


Figure 13

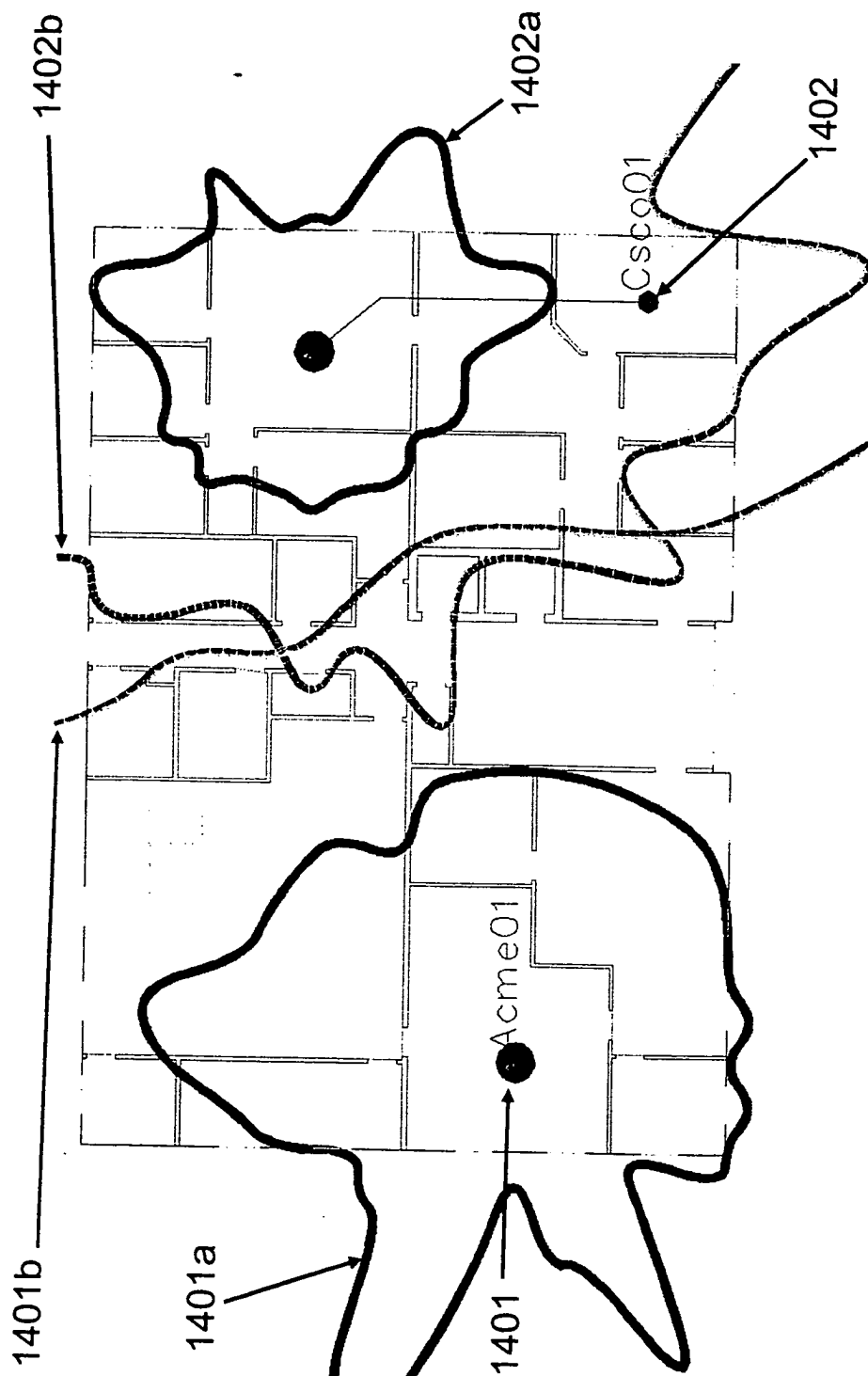


Figure 14



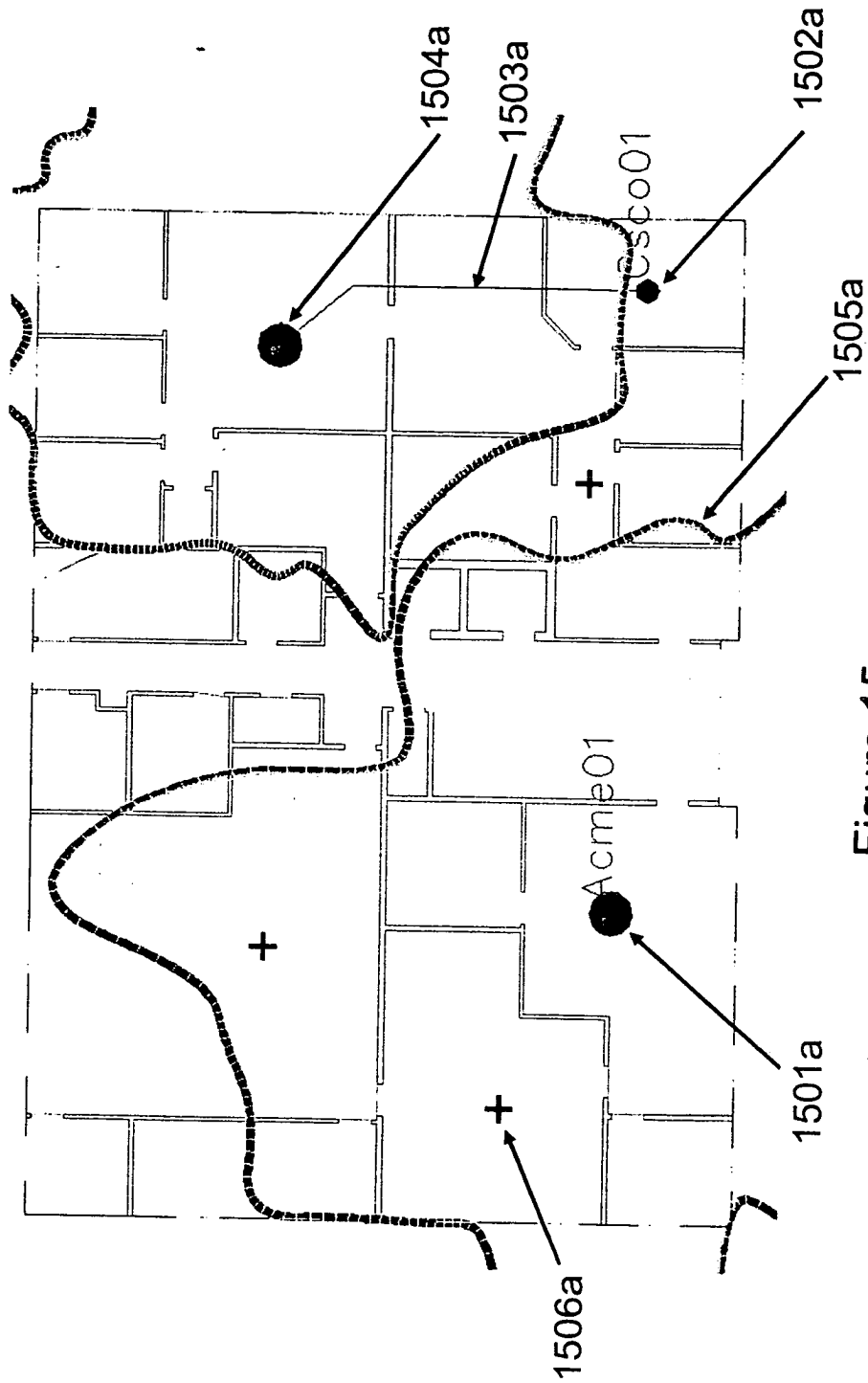


Figure 15a

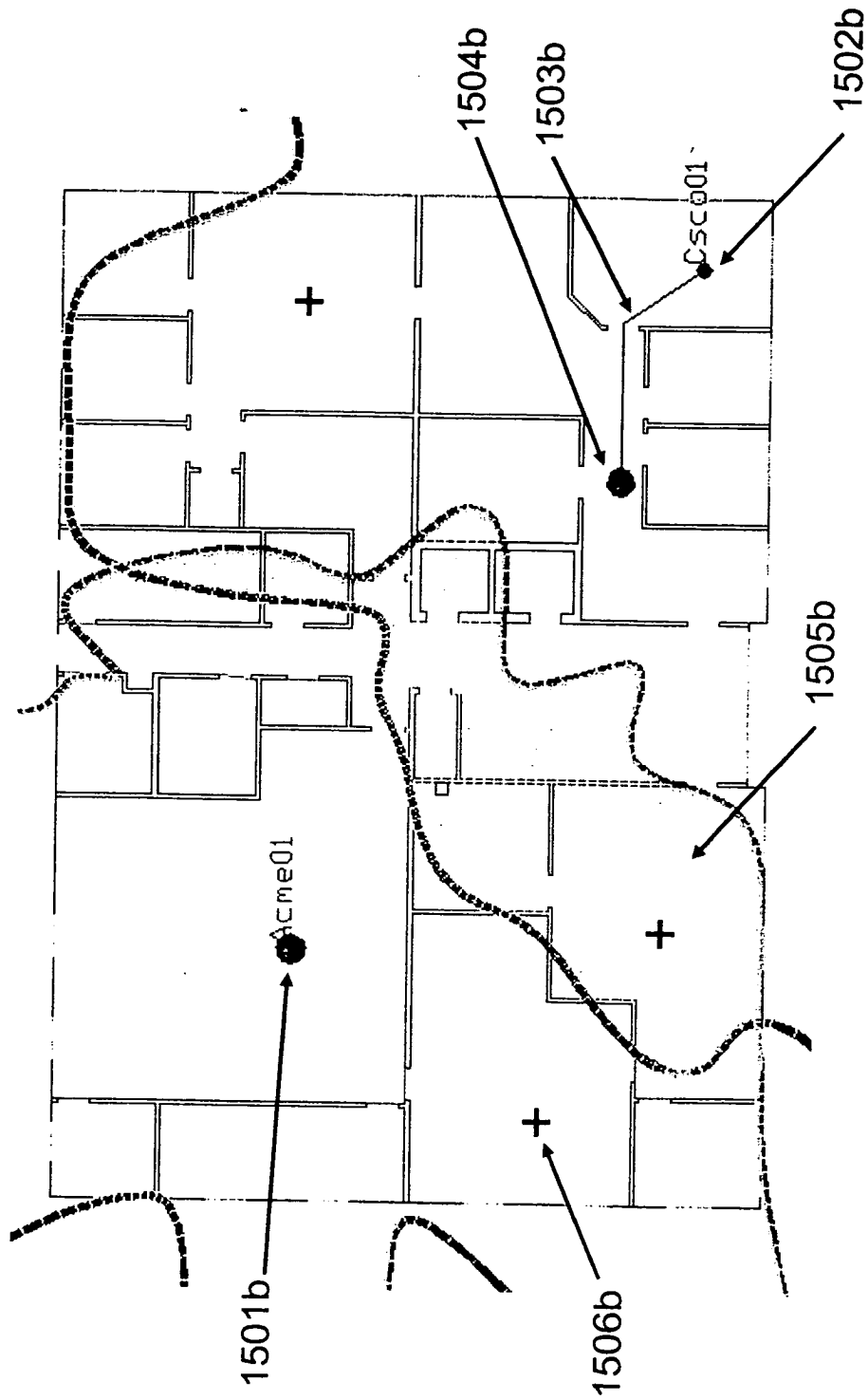


Figure 15b

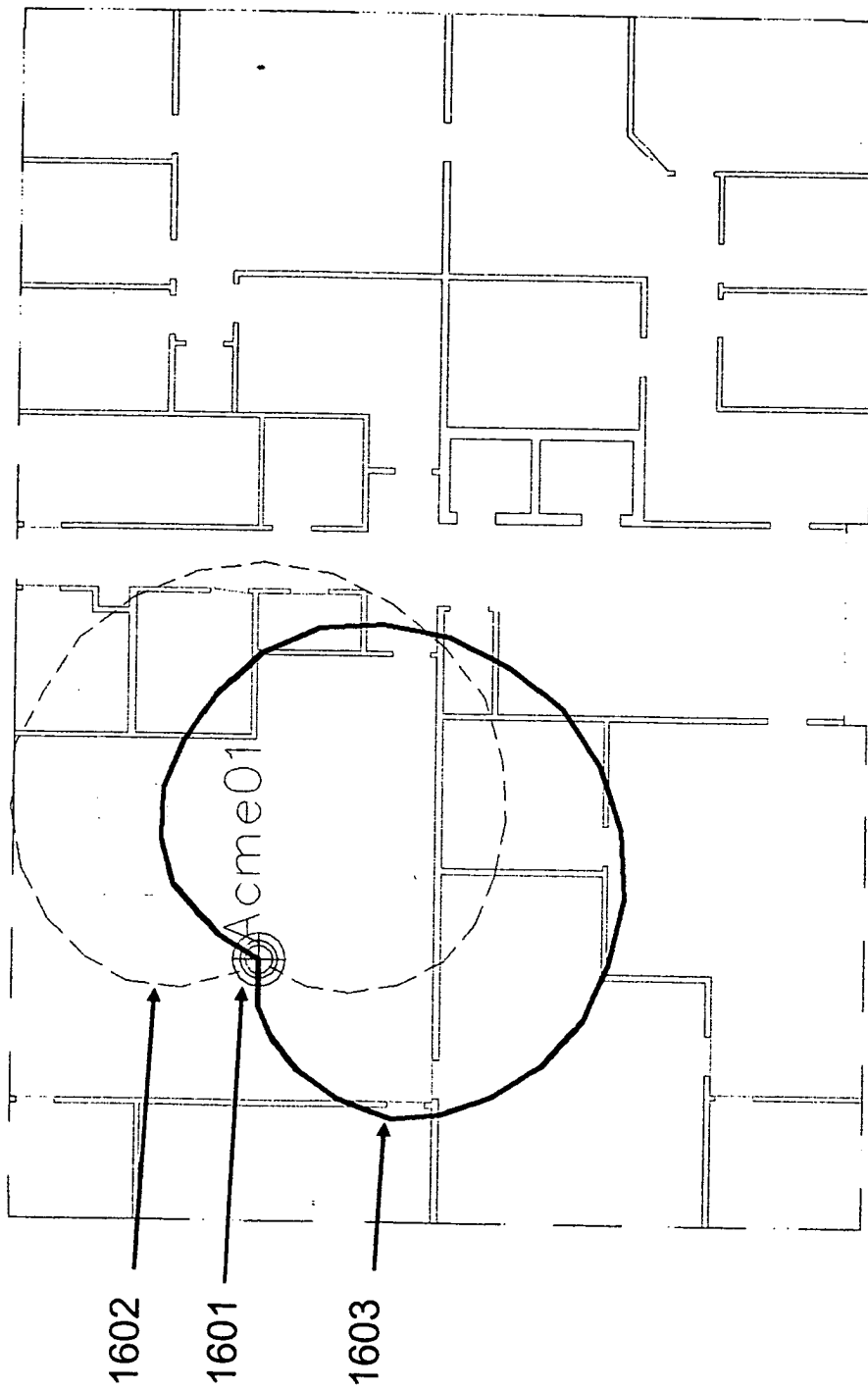


Figure 16

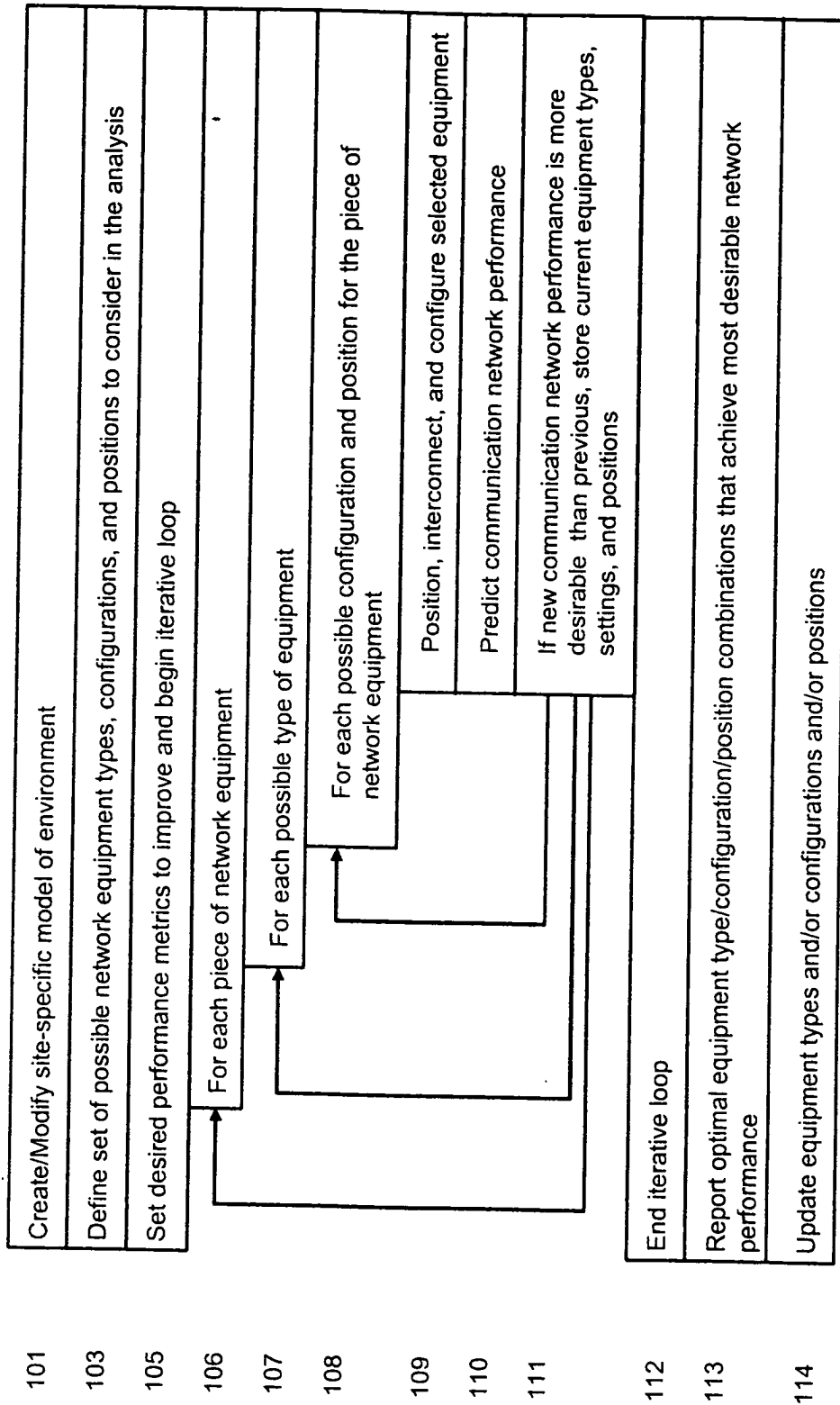


Figure 17

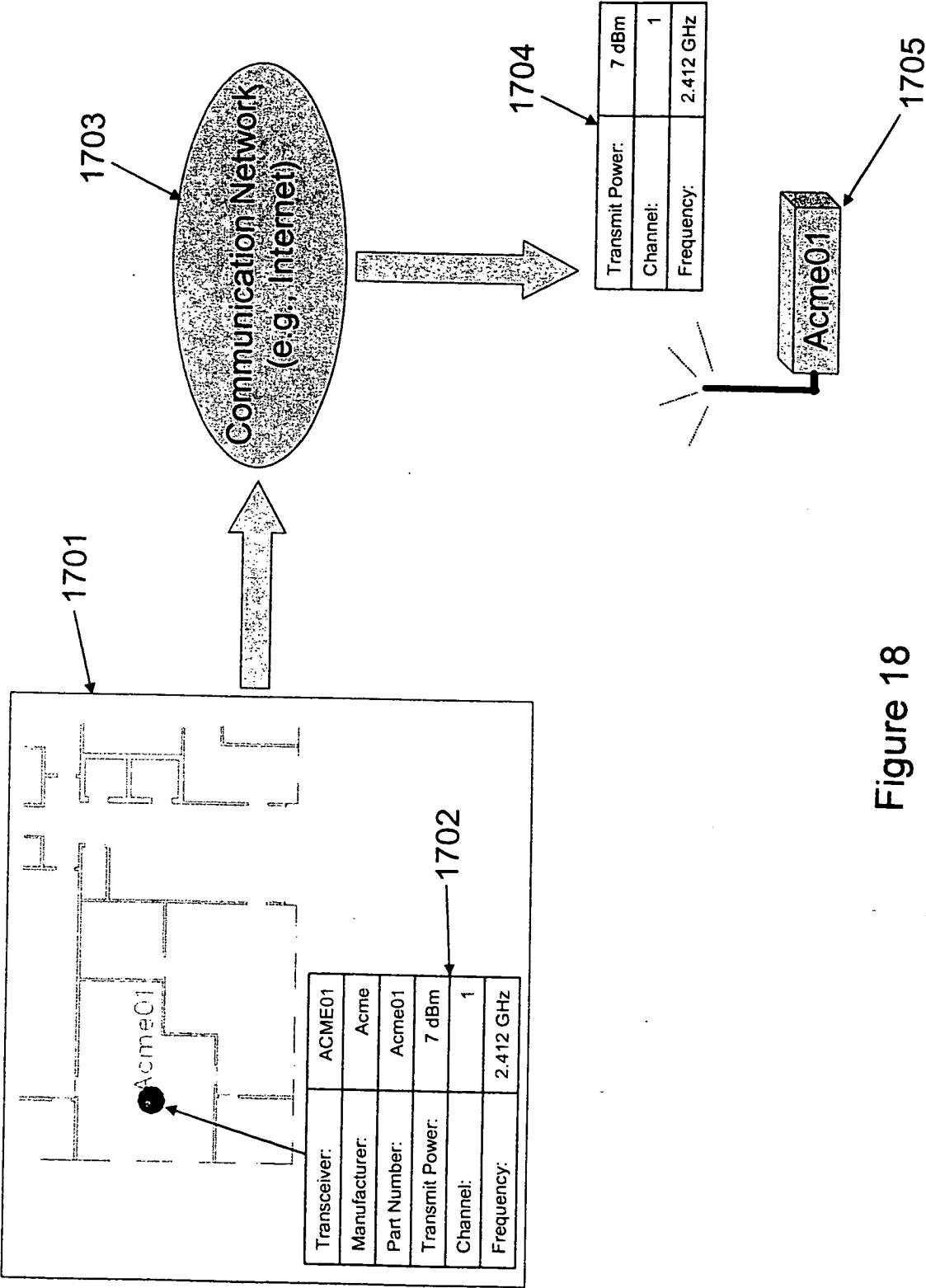


Figure 18

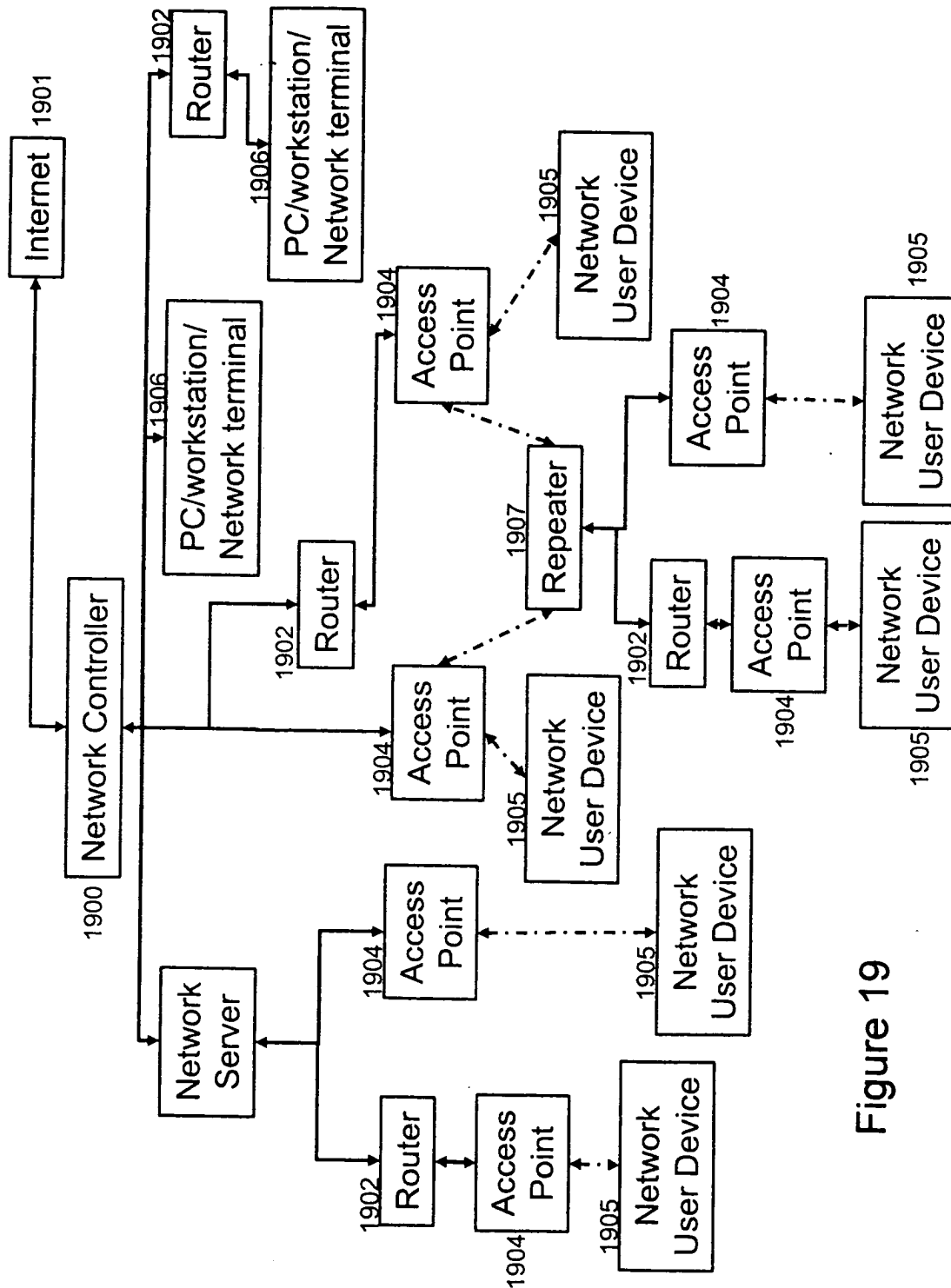


Figure 19

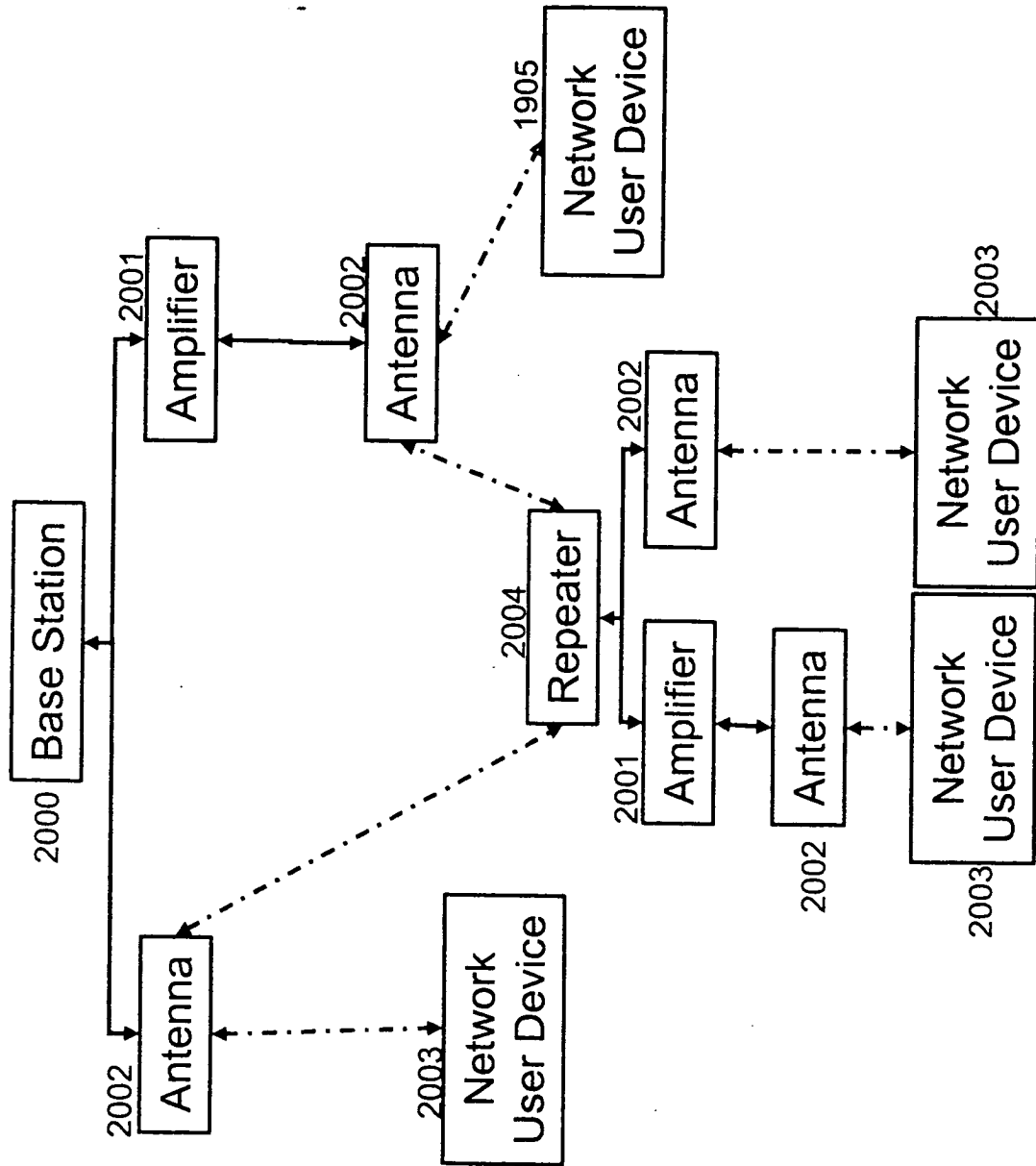


Figure 20

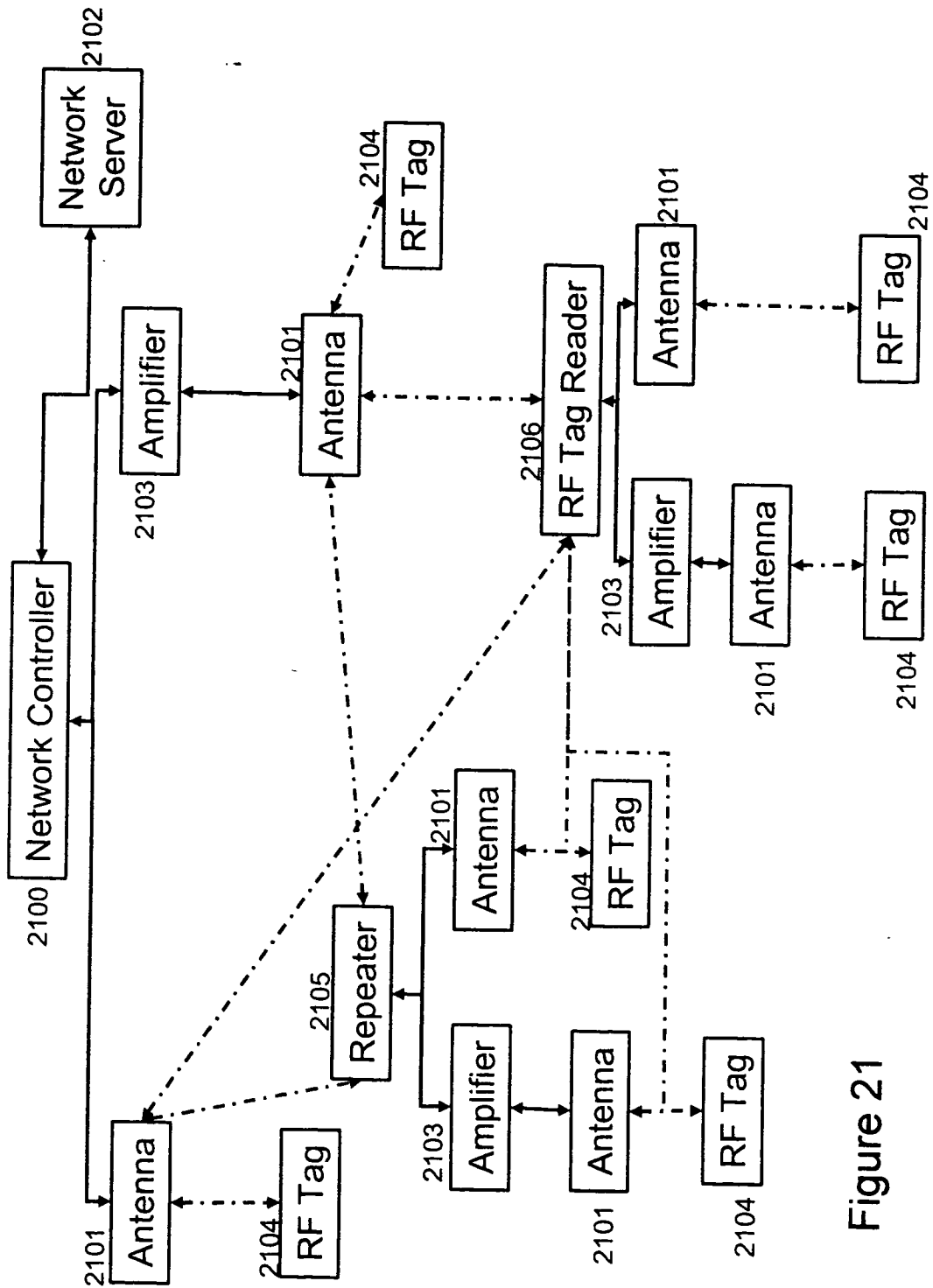
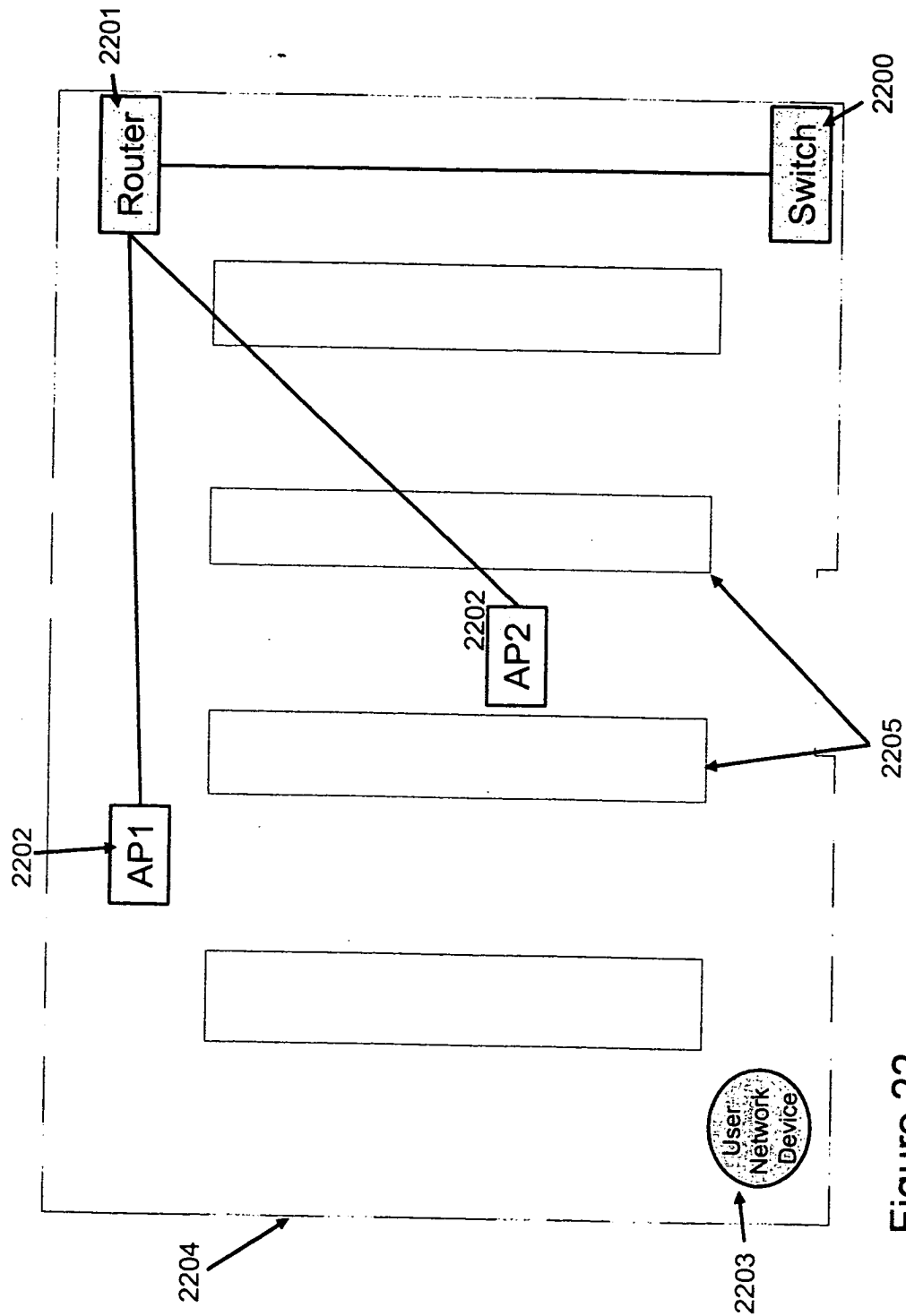


Figure 21





**Figure 22**

**RF Tag Network Query** [X]

☒ Identify and display security alerts

☒ Identify and display bandwidth provisioning

☒ Identify and display location

☒ Identify and display product specifications

☒ Manufacturer and part number

☐ Universal product bar code

☒ Shipping destination and history

☒ Expiration and warranty dates

☒ Quantity in stock

☒ Other data fields    **Configure...**

☒ Identify and display equipment diagnostic information

☒ Enable real-time tag query

☐ Display tag alert messages

☒ Enable automated network monitoring    **Configure...**

OK    Cancel

Figure 23a

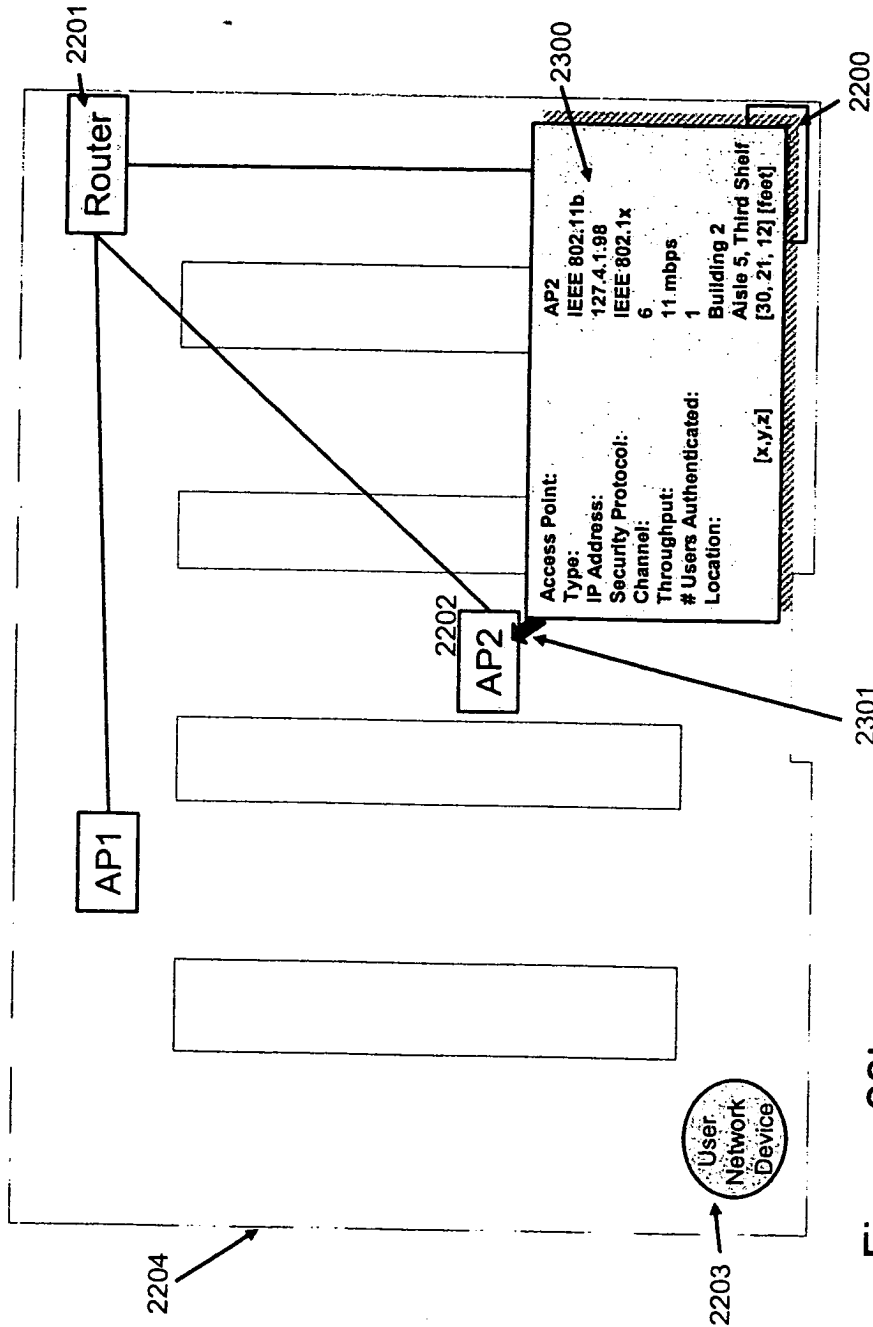


Figure 23b

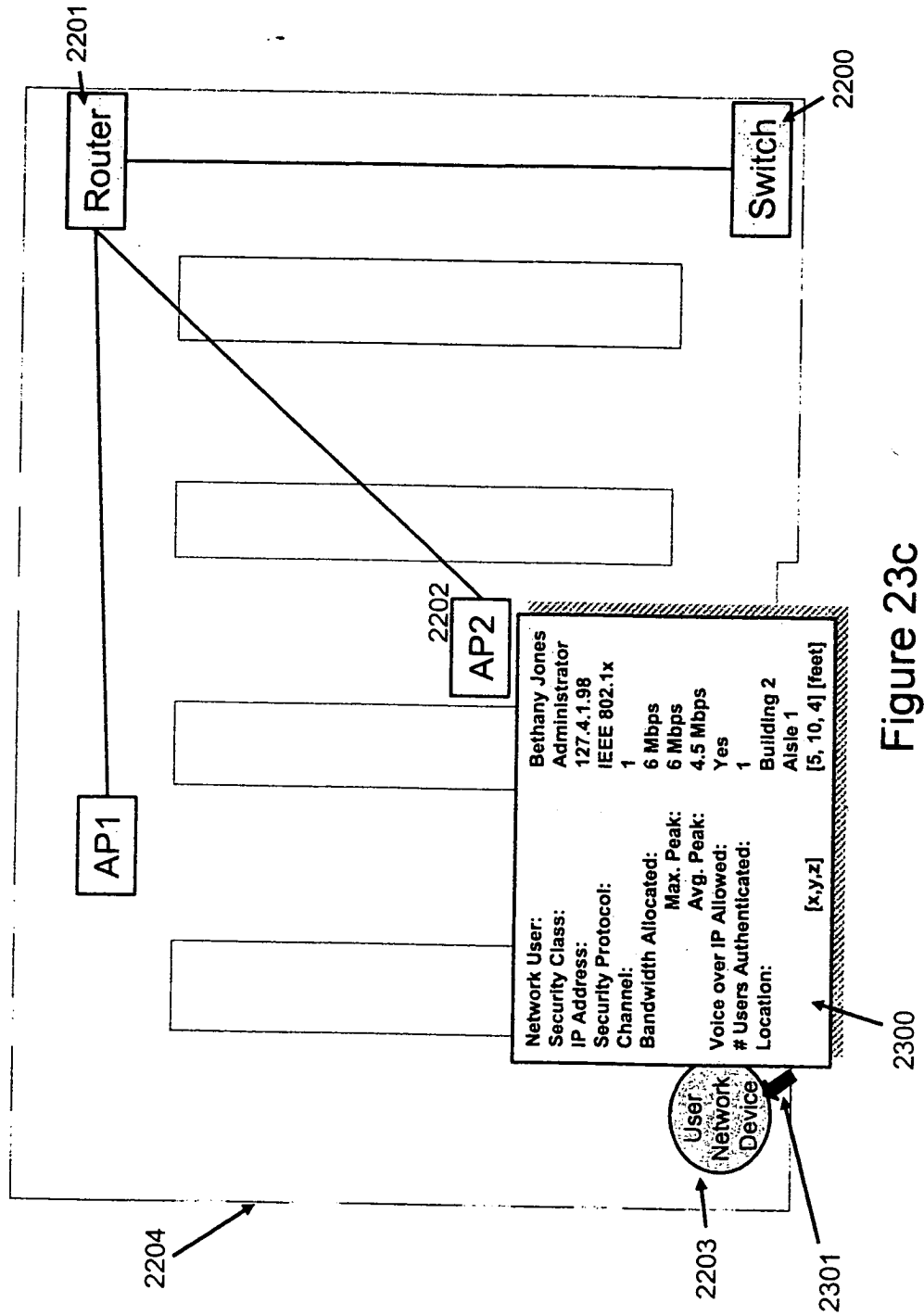


Figure 23c

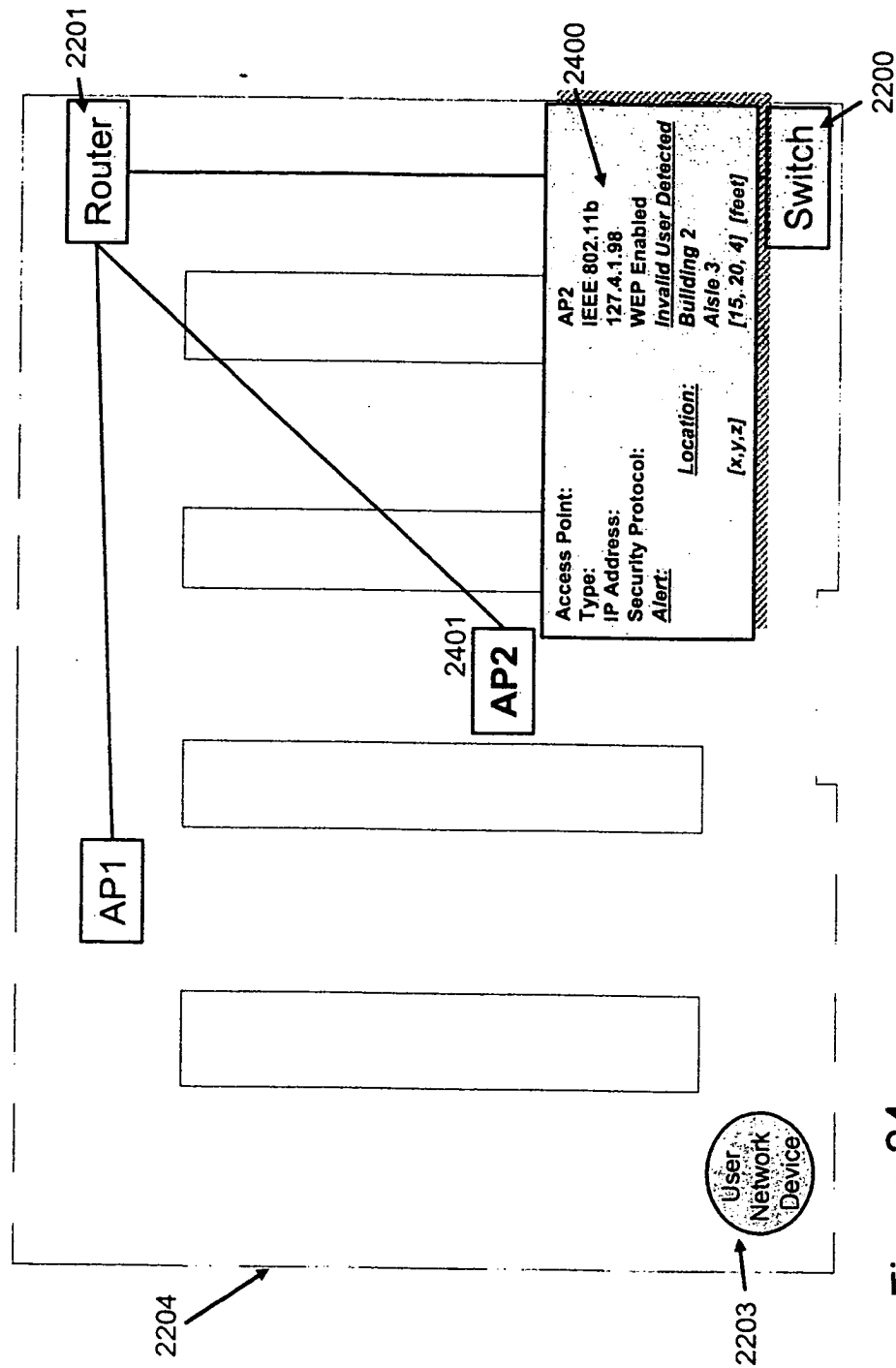


Figure 24

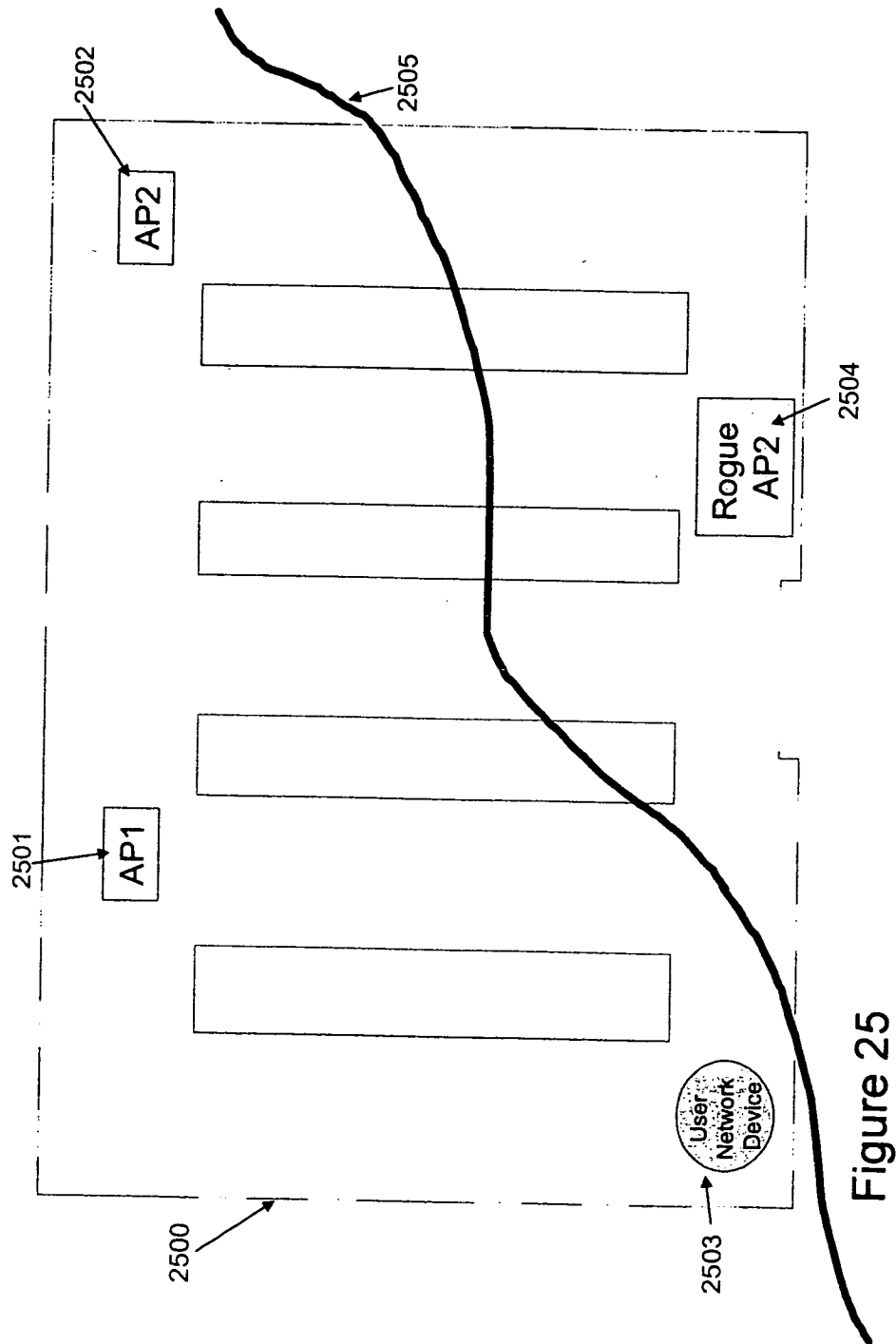


Figure 25

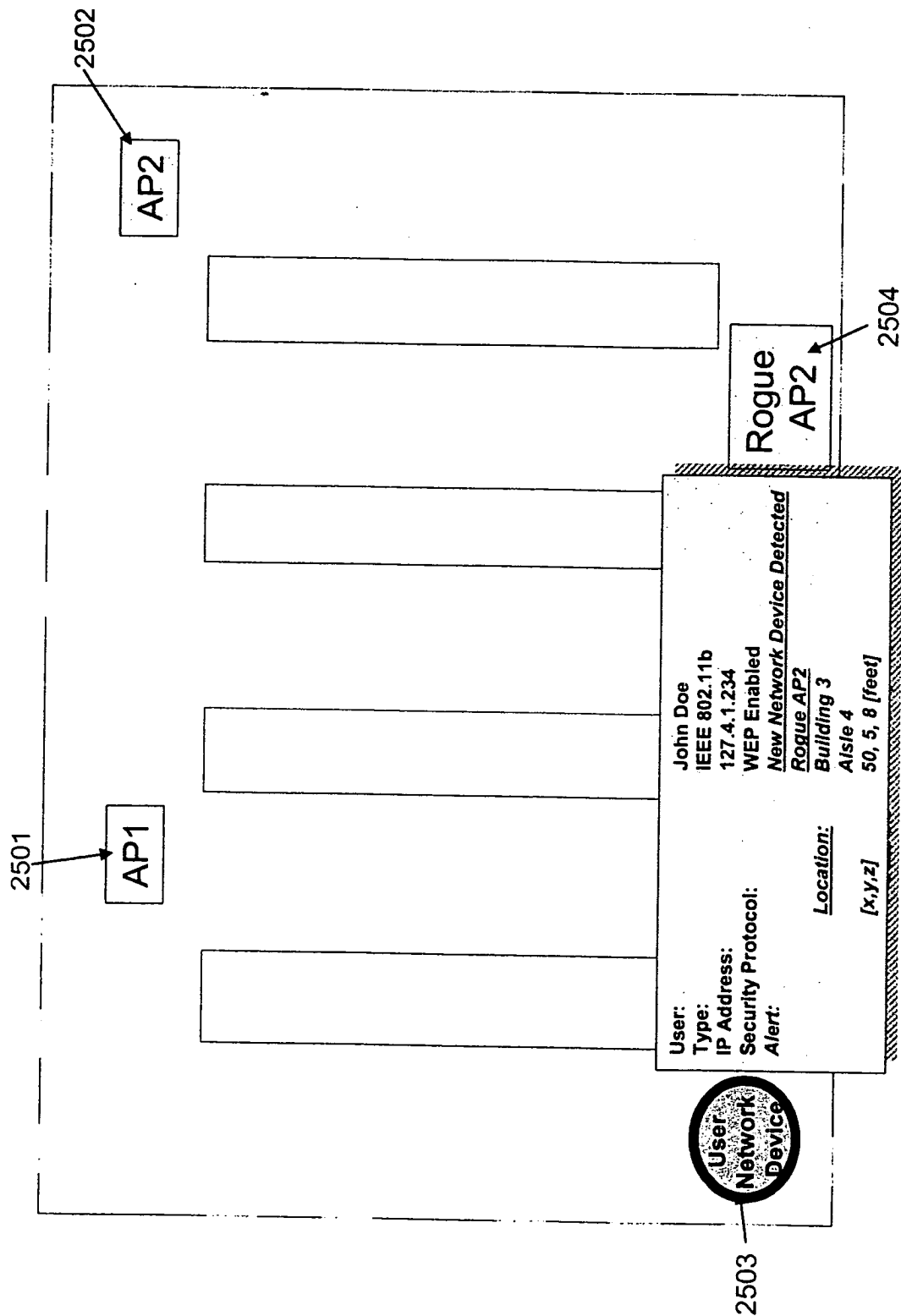


Figure 26

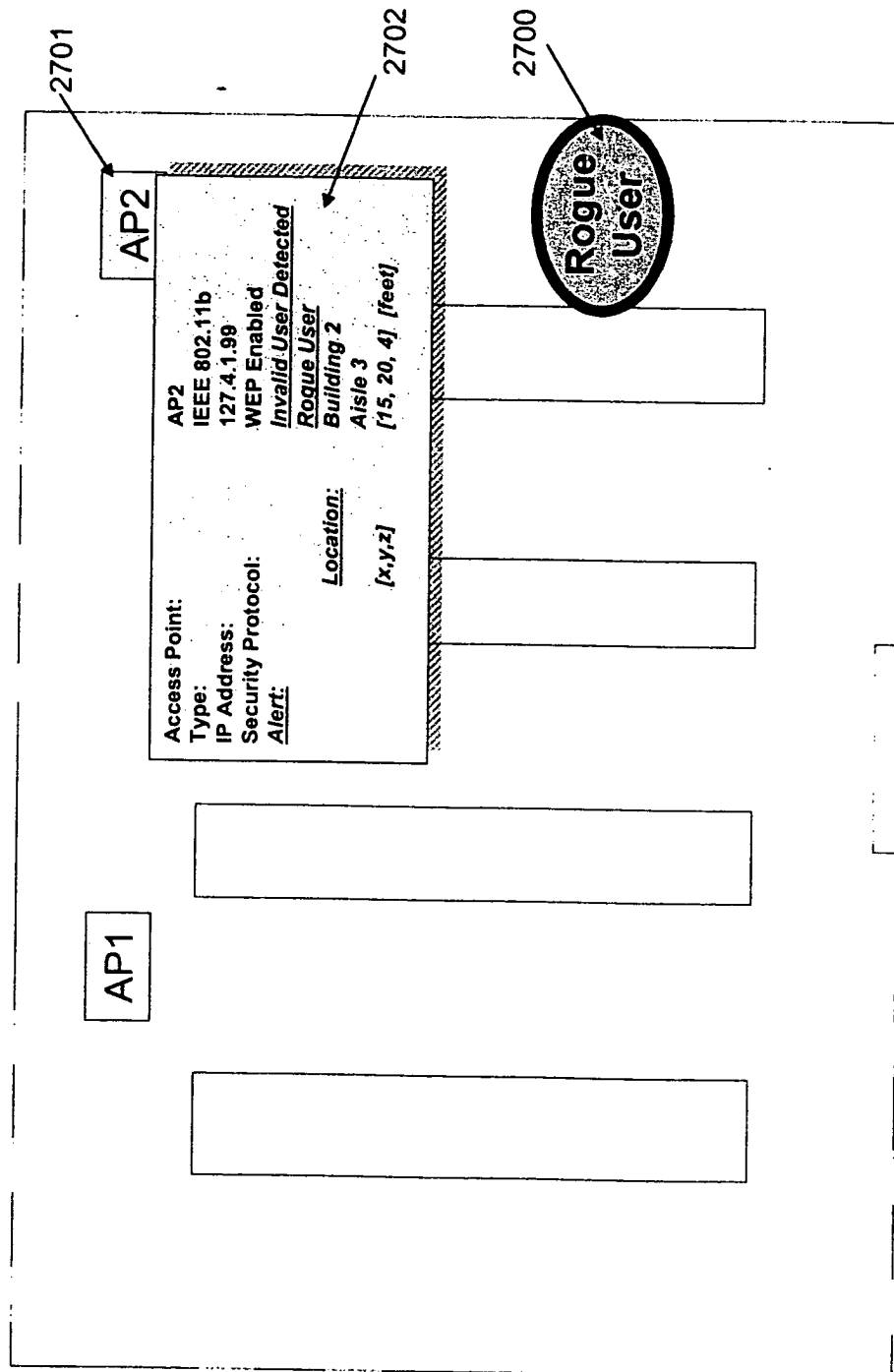


Figure 27



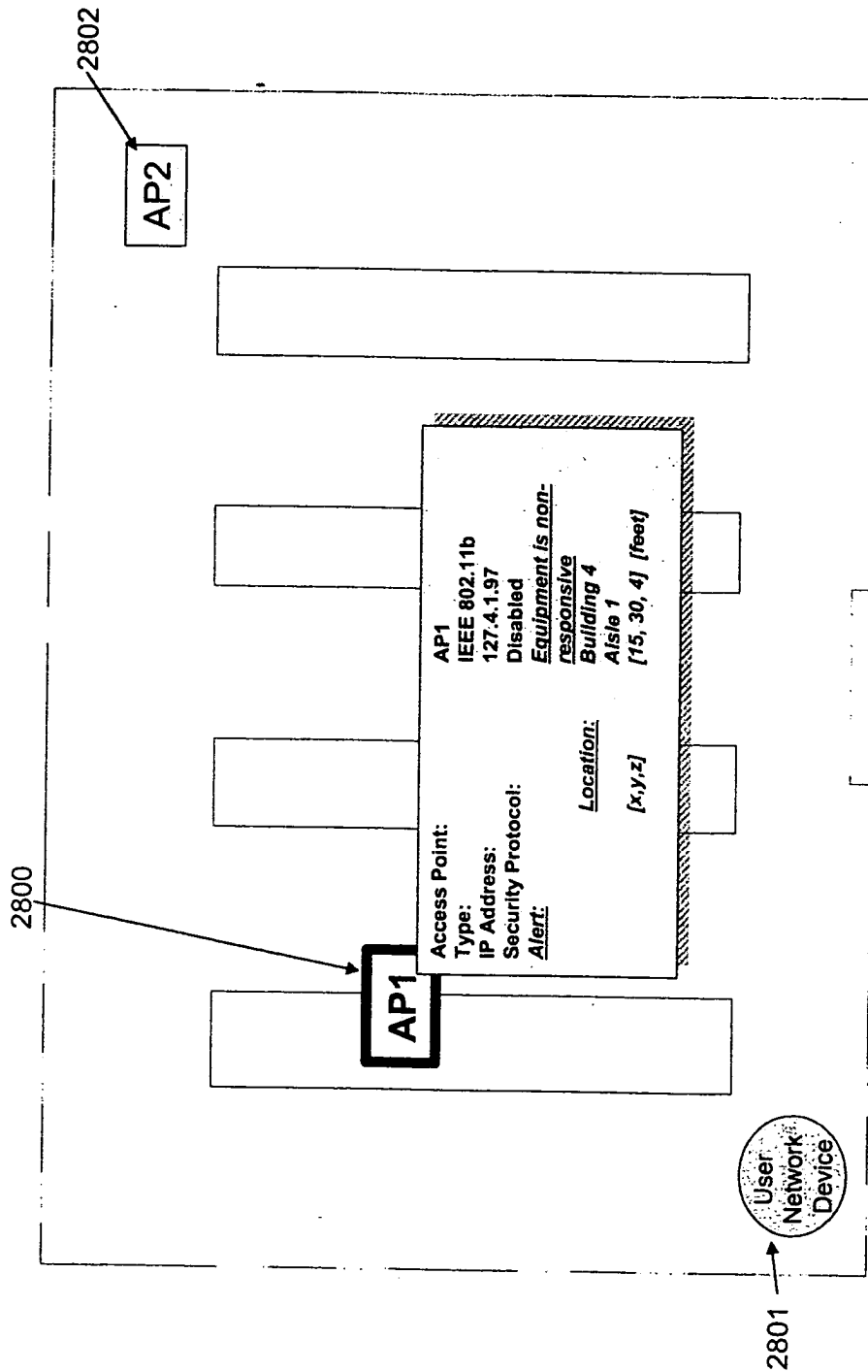


Figure 28

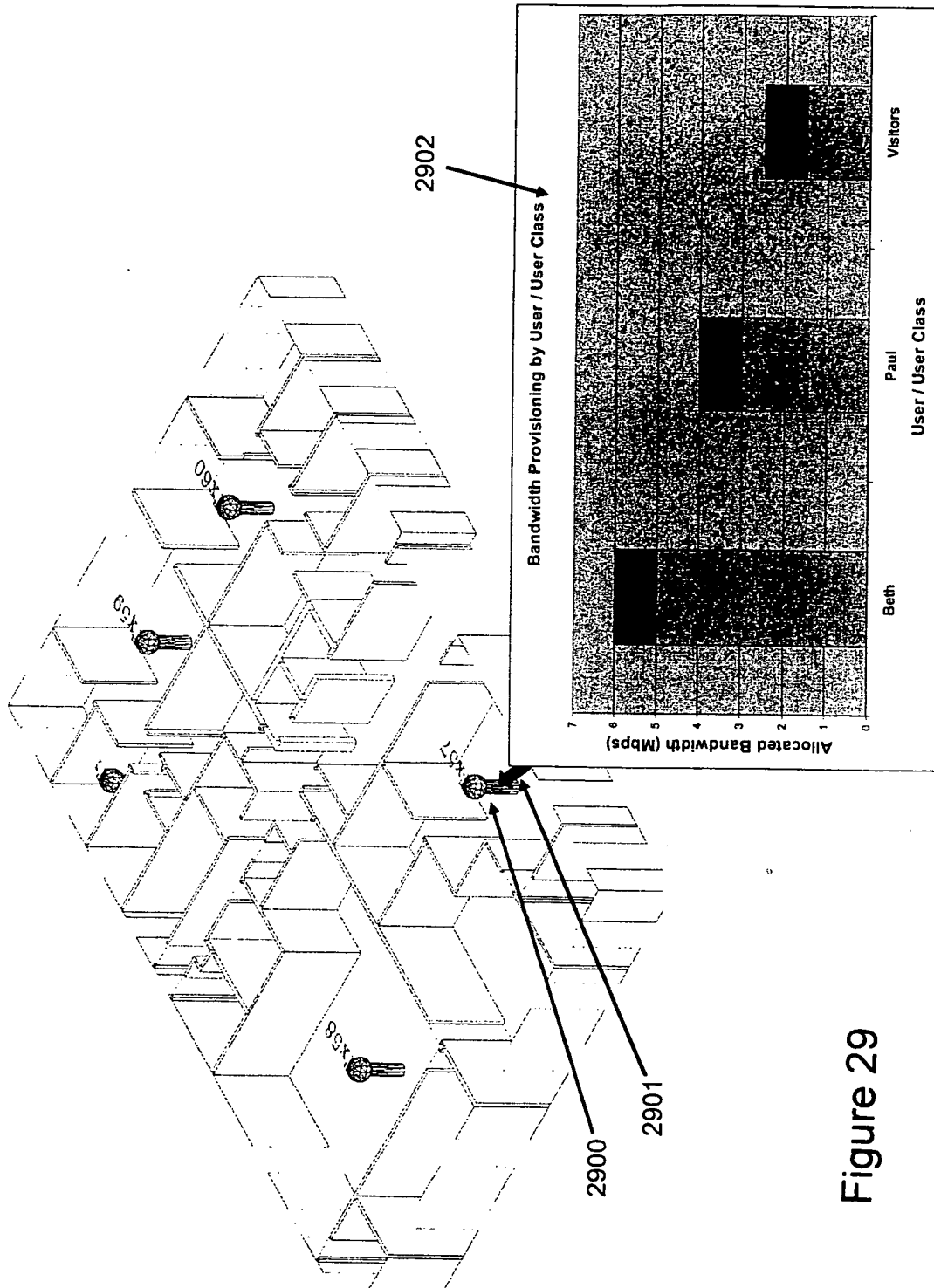


Figure 29

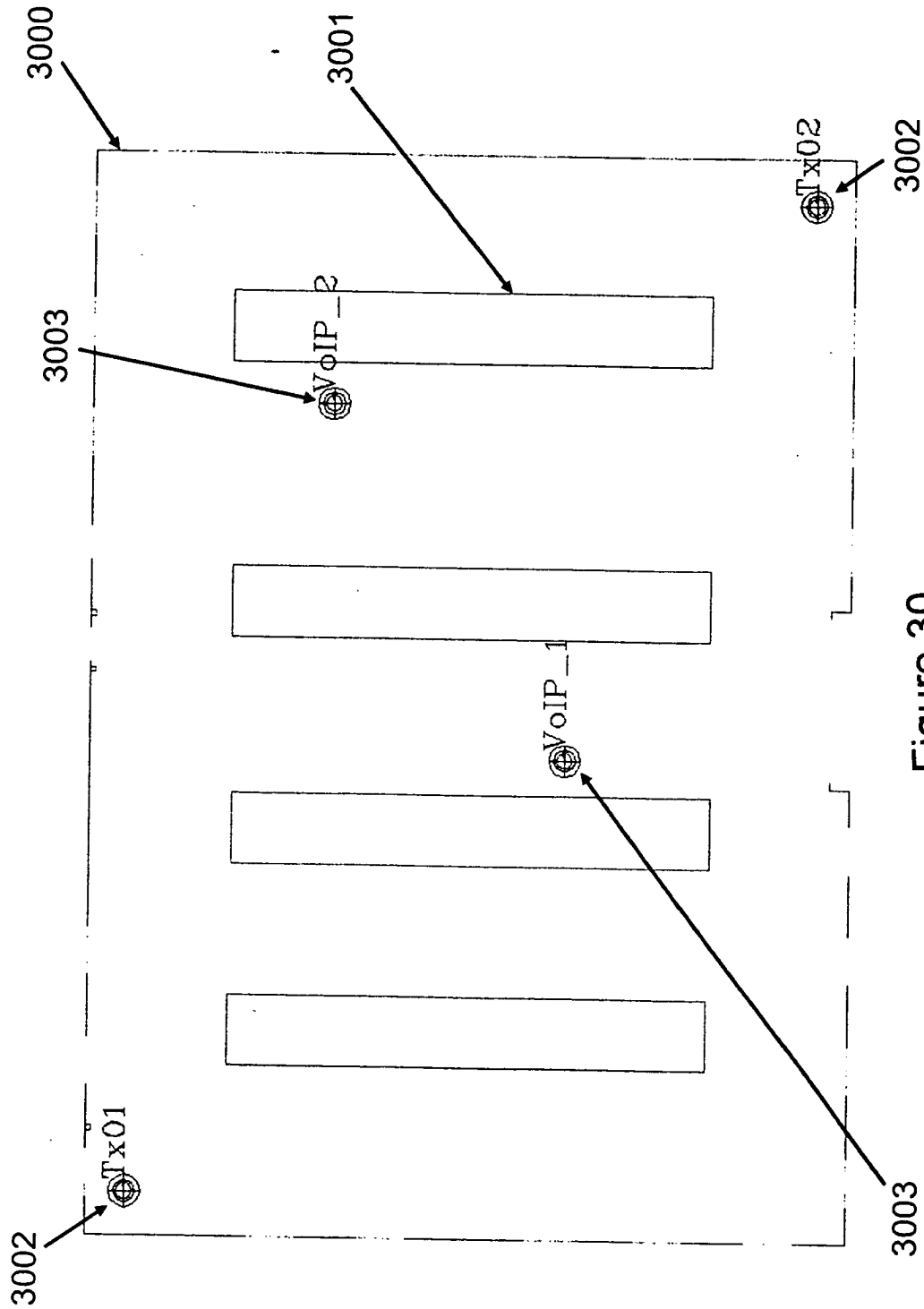
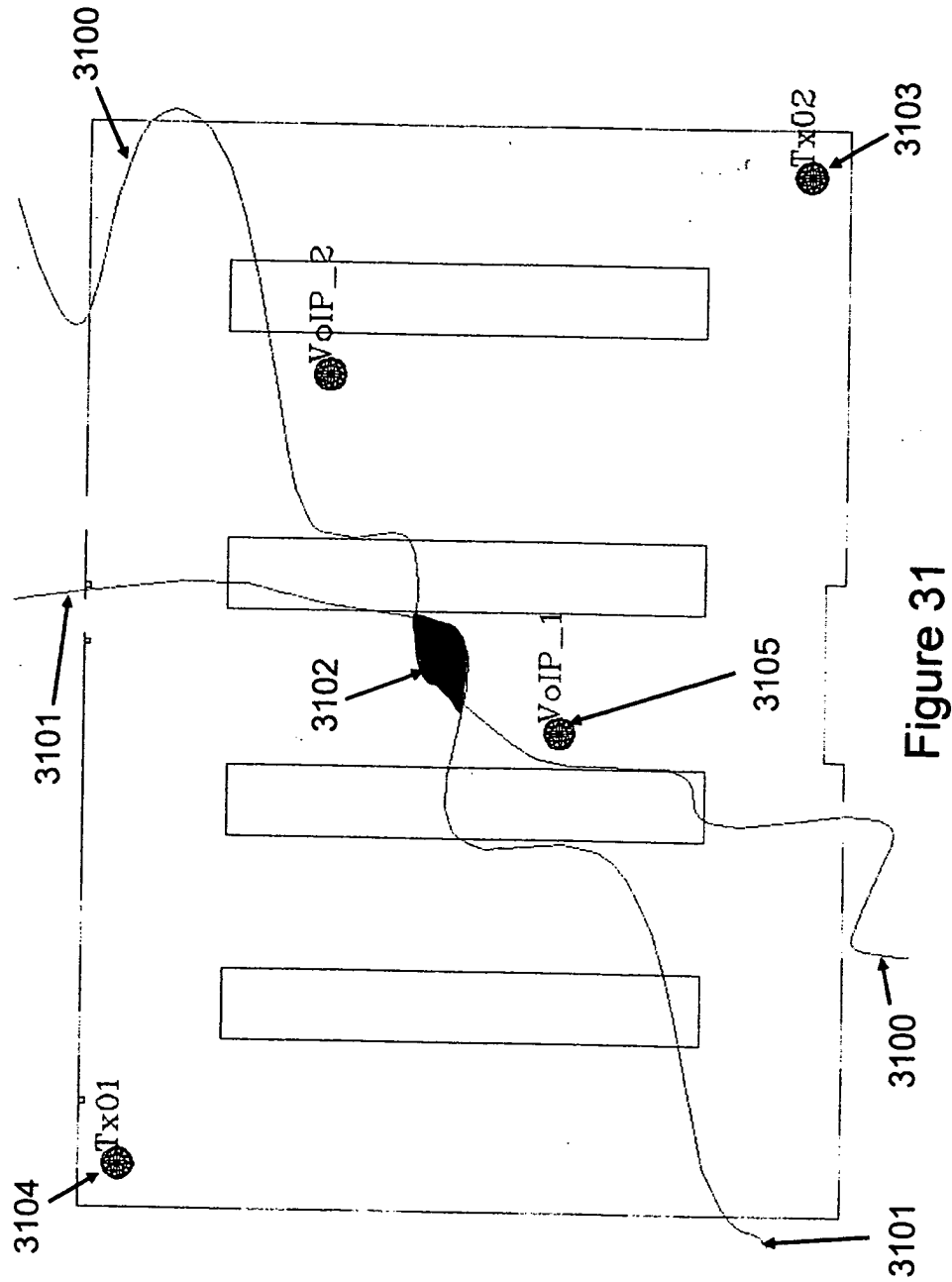


Figure 30



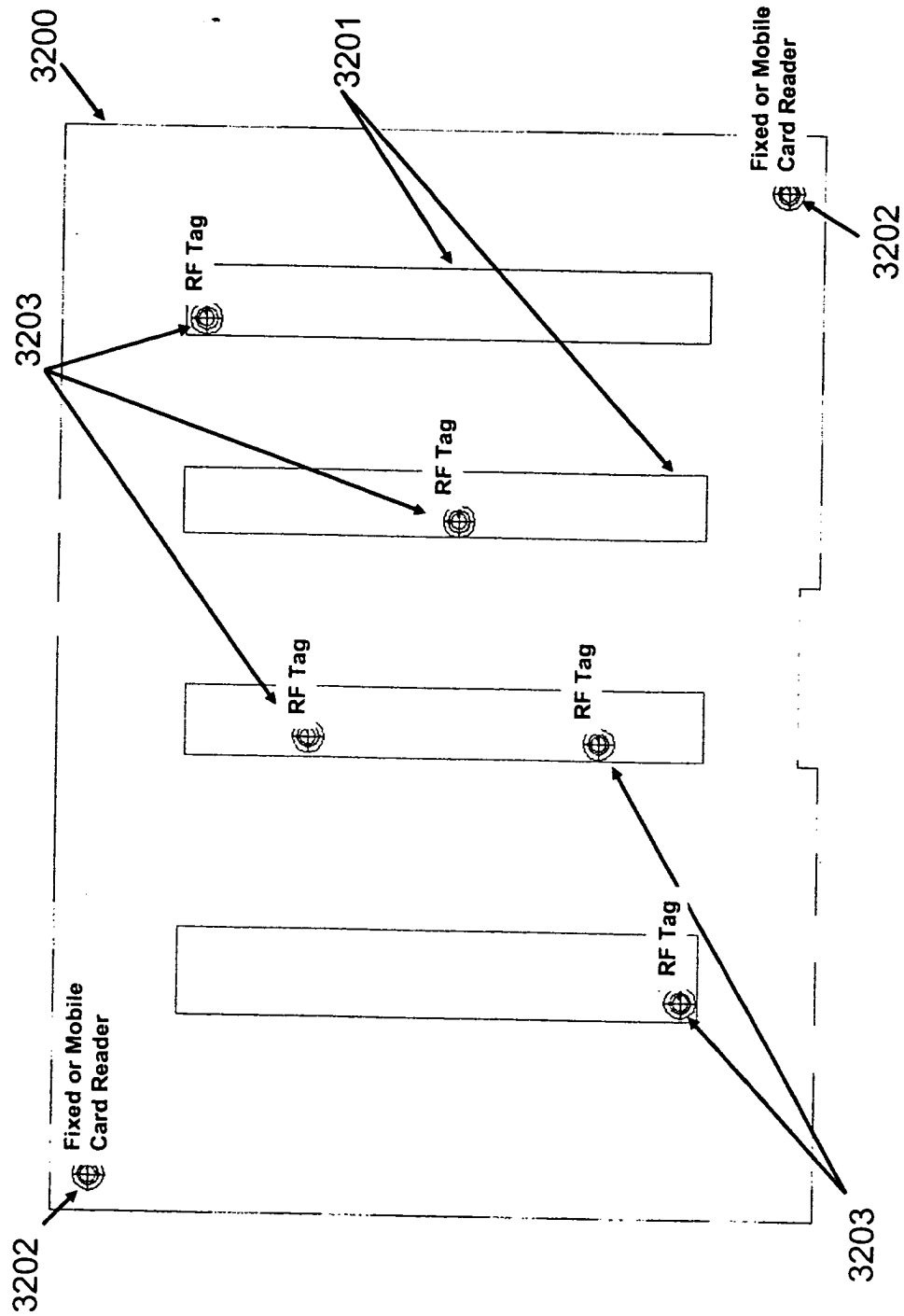


Figure 32

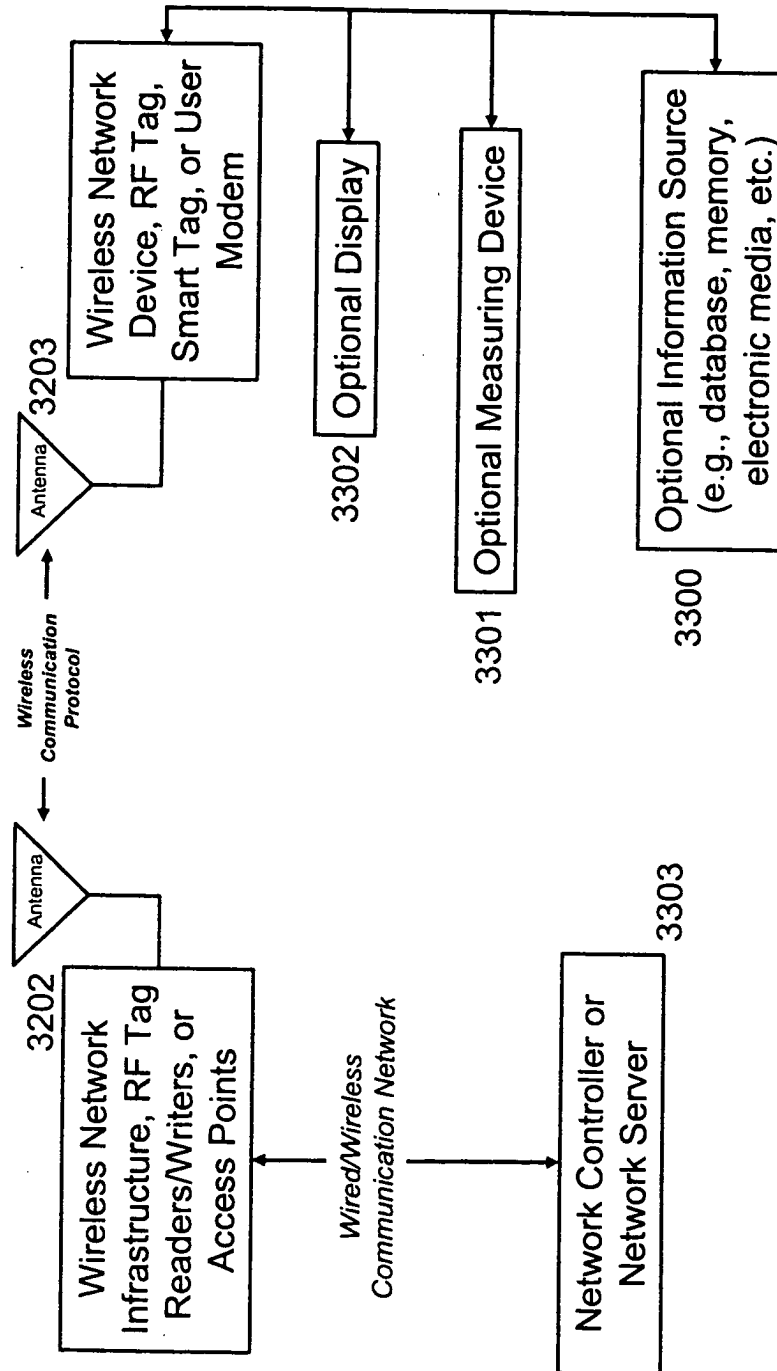


Figure 33

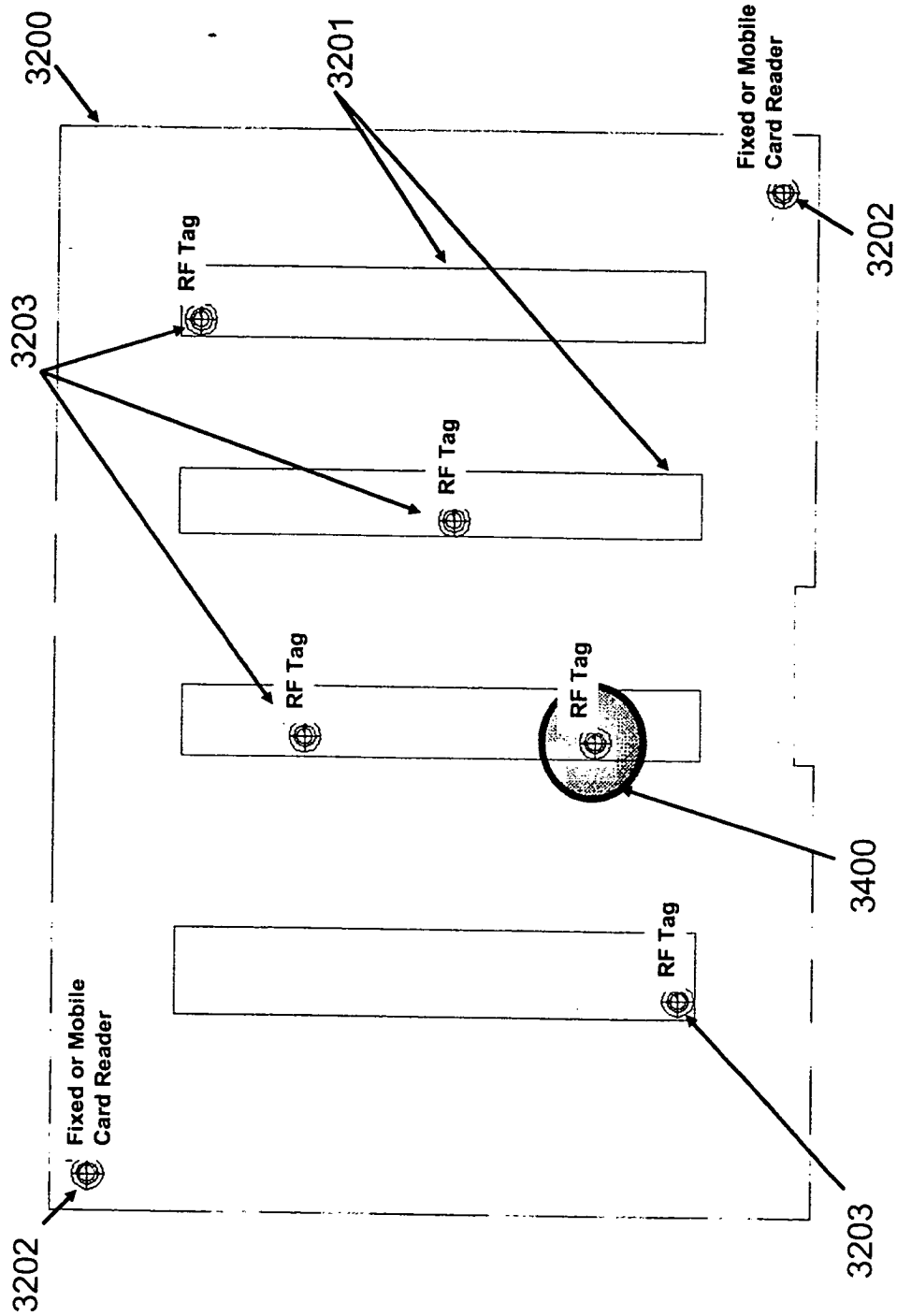


Figure 34

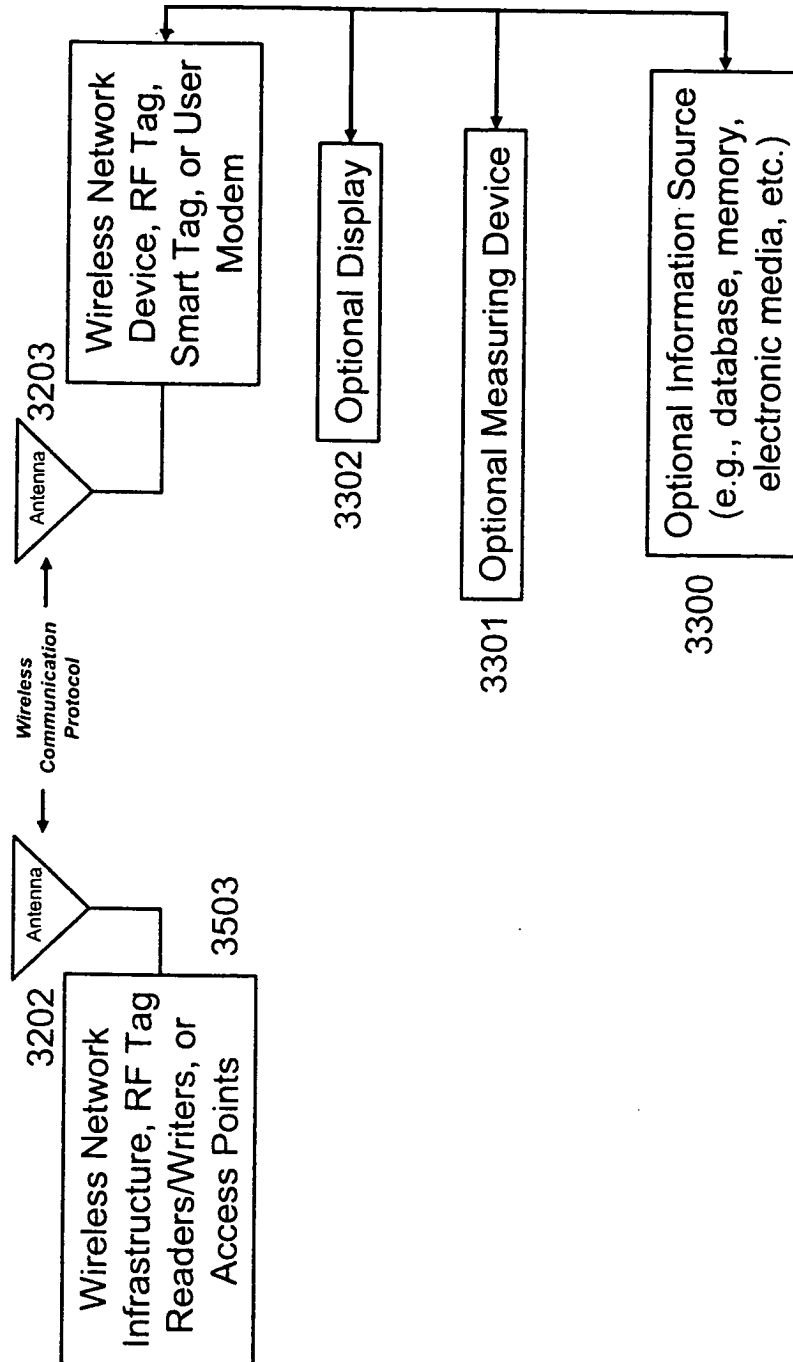


Figure 35



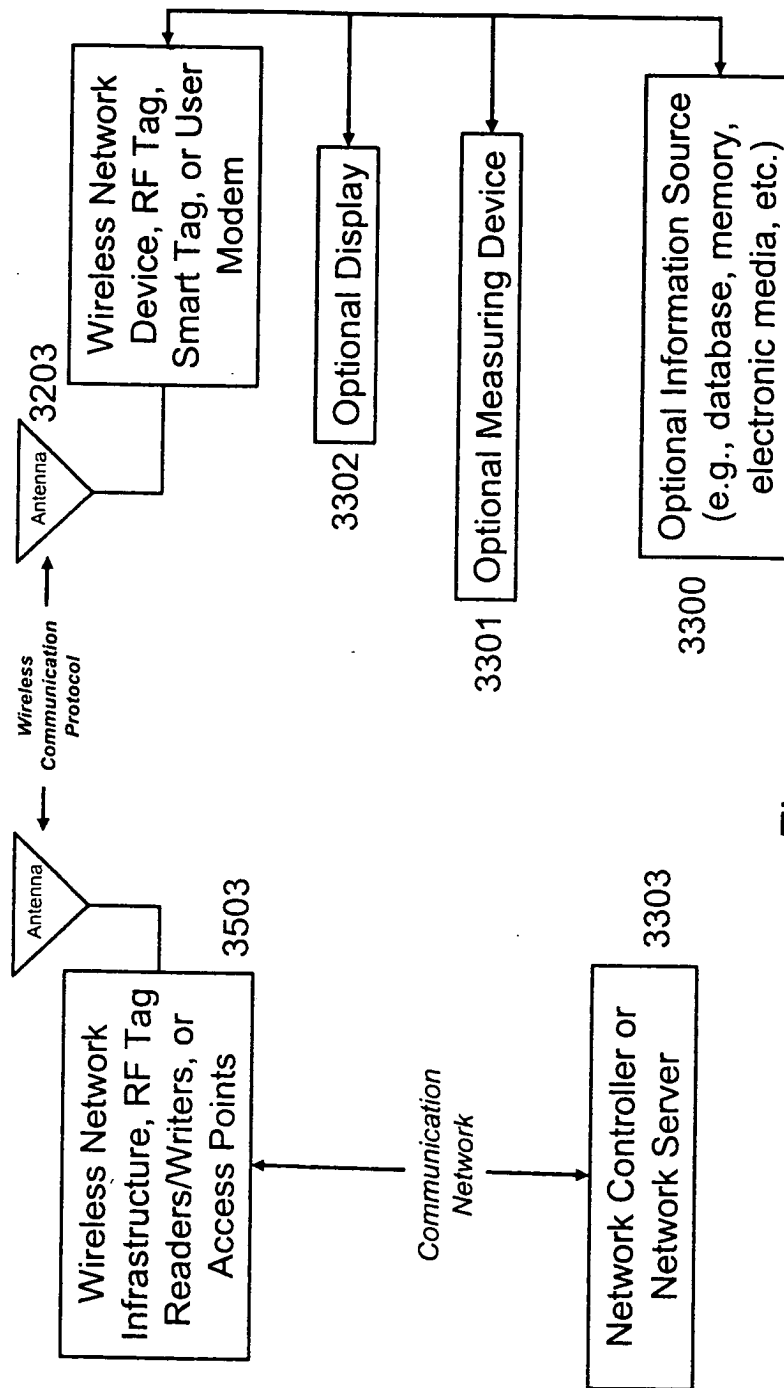


Figure 36